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Ontario Food & Nutrition Strategy

A COMPREHENSIVE
EVIDENCE-INFORMED
PLAN FOR HEALTHY FOOD
AND FOOD SYSTEMS
IN ONTARIO





About the Ontario Food and Nutrition Strategy

The Ontario Food and Nutrition Strategy was developed by a dedicated group of key actors with the goal of strengthening Ontario's food systems and improving the health and well-being of Ontarians.

Vision: Productive, equitable and sustainable food systems that support the holistic health and well-being of all people in Ontario.

Mission: To develop a cross government, multi-stakeholder coordinated approach to food policy development and a plan for healthy food and food systems in Ontario.

We Value

Health and well-being: Addressing broader policy issues that influence access to healthy food, food literacy and food systems

Sustainability: Building and supporting healthy, resilient food systems and communities throughout Ontario

Collaboration: Working across sectors to promote evidence-based collective action in food and nutrition



Key Actors

Canadian Cancer Society
Cancer Care Ontario
Canadian Diabetes Association
Canadian Environmental
Law Association
Chiefs of Ontario
Dietitians of Canada
Health Canada, First Nations & Inuit
Health Branch, Ontario Region
Heart and Stroke Foundation
Nishnawbe Aski Nation
Ontario Collaborative Group
on Healthy Eating and
Physical Activity
Ontario Federation
of Agriculture
Ontario First Nations Integrated
Health Strategy Working Group
Ontario Home
Economics Association
Ontario Medical Association
Ontario Public
Health Association
Ontario Society of Nutrition
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Organic Council of Ontario
Public Health Ontario
Ryerson University
Sustain Ontario
Toronto Food Policy Council
University of Guelph
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About this Report

This report discusses the development of the Ontario Food and Nutrition Strategy, as well as its three strategic directions and 25 action areas that are needed to improve the health and well-being of Ontarians and the province's food systems.

The body of this report provides an evidence-based rationale for each of the 25 action areas proposed in the Ontario Food and Nutrition Strategy and highlights some of many initiatives occurring in the field. Definitions agreed upon by the Ontario Food and Nutrition Strategy Group can be found in the glossary.

Appendix A lists stakeholders who have been continuously involved in the development of the Ontario Food and Nutrition Strategy and stakeholders who have been engaged in discussion and meetings throughout the development process.

Appendix B is the Ontario Food and Nutrition Strategy Action Plan Framework that was released in 2014 and is supported by the rationale in this report.

Appendix C provides a list of key requirements that would make the implementation of the Ontario Food and Nutrition Strategy successful, as identified by the Ontario Food and Nutrition Strategy Group in 2014.

Appendix D is a summary of evidence to support each of the 25 action areas discussed in the strategy.

The Ontario Food and Nutrition Strategy calls for healthy, local food in several priority action areas; the intention for this is to encourage local, municipal and provincial programs and policies to support healthy eating, while driving local economic development when possible.



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Central to the strategy are its goals, which include promoting the holistic health and well-being of all Ontarians, reducing the burden of obesity and chronic disease among Ontarians and the Ontario health-care system, strengthening the Ontario economy and promoting resiliency of Ontario's food systems.

EXECUTIVE SUMMARY

The Ontario Food and Nutrition Strategy is an expert and evidence-informed plan for healthy food and food systems in Ontario. Central to the strategy are its goals, which include promoting the holistic health and well-being of all Ontarians, reducing the burden of obesity and chronic disease among Ontarians and the Ontario healthcare system, strengthening the Ontario economy and promoting resiliency of Ontario's food systems. Presently, high rates of chronic disease and suboptimal diets are prevalent across the province. Food insecurity is impacting the health of our most vulnerable populations, and communities are striving to be able to access safe and personally acceptable nutritious foods produced in a sustainable way. Ontario's food system is also aiming to grow and improve to better preserve, use and protect land, forests and waterways; more effectively produce food and handle waste; support training and skills throughout the agri-food sector, and ensure food systems workers have viable livelihoods. To address the complex and interconnected relationships between the food systems and health and well-being, a whole-system perspective was applied in the development of the Ontario Food and Nutrition Strategy and resulted in the following strategic directions:

1) HEALTHY FOOD ACCESS

People in Ontario have access to and the means to choose and obtain safe, healthy, local and culturally acceptable food.

2) FOOD LITERACY AND SKILLS

People in Ontario have the information, knowledge, skills, relationships, capacity and environments to support healthy eating and make healthy choices where they live, gather, work, learn and play.

3) HEALTHY FOOD SYSTEMS

Ontario has diverse, healthy and resilient food systems that promote health and contribute to an equitable and prosperous economy.

Twenty-five priority action areas have been developed to guide work across these three strategic directions. Together, the proposed action areas constitute a comprehensive provincial food and nutrition strategy framework that was released in October 2014. This report provides evidence-based rationales for each of the 25 action areas, suggests actions to support their implementation, and highlights key initiatives presently occurring in the field.

In the past few years, Ontario has made a number of strides in food systems planning through the implementation of several community, organizational and government initiatives. However, there are still many areas that require improvement in food systems work. Realizing these important changes will require everyone, including civil society, to play a role in creating and sustaining healthy food systems in Ontario. The implementation of a coordinated cross-sector, multi-stakeholder food and nutrition strategy supports alignment and collaboration to ensure healthy food systems are strengthened and maintained in Ontario for the health of present and future generations.


INTRODUCTION

ONTARIO FOOD AND NUTRITION STRATEGY

The concept of an Ontario Food and Nutrition Strategy was initiated by the Ontario Collaborative Group for Healthy Eating and Physical Activity in 2009 and finalized by the Ontario Food and Nutrition Strategy Group in 2014.^{1,2} Due to the interconnected nature of food systems, a whole-system perspective is critical for creating a healthy and sustainable food environment. Food systems include everything from food production and procurement, to food processing, food distribution, food access, food consumption, farmland preservation and stewardship, food skills and education, and waste management.³ Therefore, the strategy was developed in collaboration with many experts and stakeholders representing agriculture, food, health, First Nations, Inuit and Métis communities and organizations, from sectors spanning not-for-profit, public health, academia and government. Consultations, discussions, face-to-face meetings and outreach initiatives were among the many formats used to collaborate across Ontario (Appendix A). The resulting Ontario Food and Nutrition Strategy Framework is a comprehensive approach to provincial food systems planning; it consists of three strategic directions encompassing healthy food access, food literacy and skills, and healthy food systems (refer to page 12), and 25 action areas (refer to page 13). Suggested actions for each of the action areas were also part of the framework and have been updated slightly since their release based on discussions with key informants (Appendix B).²

The Ontario Food and Nutrition Strategy is intended to work across government, fostering an inter-ministerial and multi-stakeholder coordinated approach to decision-making around food policy and program development. For it to succeed it requires 1) a coordinated provincial office and advisory council to address food and nutrition policy and programming, 2) a systematic approach to measurement, monitoring and analysis of key indicators and 3) sufficient capacity and resources to support all elements of the strategy (Appendix C). Once implemented, the recommended action areas called for in the Ontario Food and Nutrition Strategy would promote the wholistic health and well-being of all people in Ontario, reduce the burden of chronic disease, and strengthen Ontario food systems and the economy.

This report provides rationale and evidence for each of the 25 priority action areas recommended to create productive, equitable and sustainable food systems that support the wholistic health and well-being of the people of Ontario. A literature review, guided by subject matter experts, was conducted for each action area and key supporting references were summarized in evidence tables (Appendix D). The evidenced-based rationales provide a foundation for the strategy and a guide to action in these areas. The report also highlights some of the many initiatives already occurring in the province that are working to strengthen the food systems and the well-being of Ontarians.



This report provides rationale and evidence for each of the 25 priority action areas recommended to create productive, equitable and sustainable food systems that support the wholistic health and well-being of the people of Ontario.



BACKGROUND

Poor nutrition and access barriers to healthy food are important risk factors contributing to the alarming health, economic and social burdens of chronic disease in Ontario.

The Ontario Food and Nutrition Strategy is a plan for healthy food and food systems in the province. Poor nutrition and access barriers to healthy food are important risk factors contributing to the alarming health, economic and social burdens of chronic disease in Ontario. The province has seen a rise in the prevalence of childhood obesity and chronic disease in the population. Chronic diseases, such as cardiovascular disease, cancer and diabetes, are the number one killer in Ontario, accounting for a mortality rate of 79 per cent.⁴ These conditions have

numerous impacts on the quality of life of individual Ontarians, community strength and well-being, and the economy through lost labour and the resulting increased costs on the healthcare system. Preventable illnesses, to which unhealthy eating contributes, make up an estimated 25 per cent of healthcare costs in Ontario.⁵ Total healthcare costs are projected to reach 70 per cent of the province's total operating budget by 2022.⁶

Behaviours such as physical activity and healthy eating can reduce the risk of these chronic conditions. For example, eating five or more servings of vegetables and fruit a day can reduce the risk of heart disease and stroke by about 20 per cent.⁷ However, only 38 per cent of Ontarians age 12 and over reported that they consumed fruit and vegetables five or more times a day, with females (45 per cent) more likely to do so than males (31 per cent).⁸ Furthermore, 45 per cent of children (ages 12 to 17) in Canada report that they consumed fruit or vegetables at least five times per day⁹ and 24 per cent of children (ages three to 17) report drinking soft drinks, fruit drinks or sport drinks every day,¹⁰ indicating a need for a healthier diet throughout the lifecycle. Complicating matters further,

The Ontario Food and Nutrition Strategy recognizes that a healthy diet is made up of nutritious foods from all four food groups: vegetables and fruit, grains, milk and alternatives, and meat and alternatives, as well as small amounts of unsaturated fats. As a health indicator, consuming five or more servings of vegetables and fruit per day is associated with improved dietary quality.²³ For this reason, this report focuses heavily on vegetable and fruit consumption and production.

12.5 per cent of Ontario households are food insecure, meaning they do not have a high enough income to purchase an adequate quantity and quality of food to lead a healthy life.¹¹ Being food insecure increases the risk of chronic disease,¹² impacts mental health^{13,14} and is associated with becoming a high-cost user of healthcare.^{15,16} These statistics exemplify the dire need for a cross-cutting, comprehensive approach to improving well-being.

Concurrently, attention needs to be focused on Ontario's food systems to ensure that they are productive, equitable and sustainable for the environment and the livelihood of its workers, and to support the health and well-being of all people in Ontario. Ontario's food systems have a large economic impact, contributing to \$63 billion in sales per year¹⁷ and are the number one employer in the province, providing more than 767,000 jobs.^{17,18} Much work has been done in the agriculture sector to address food system concerns. However, more can be done to preserve and expand this sector for present and future generations, including supporting training and recruitment of food systems workers; job safety and sustainable livelihoods; infrastructure growth and innovation; environmental protection of land, forests and waterways; and sustainable practices.

Many communities and organizations are already working together at the municipal and regional levels to improve and strengthen local food systems. Local food has been defined by the Local Food Act as food produced or harvested in Ontario, including forest or freshwater food,¹⁹ and by other organizations as "food that has been grown or caught, processed and distributed as near to the point of consumption as

possible, which includes the community; municipality; bio-region; province; or country where the food is consumed."^{20,22} Promoting local food can support Ontario farm and food system workers, and strengthen the Ontario economy. Changes towards an optimal diet based on Canada's Food Guide could increase consumption and demand of fruit and vegetables; cause greater local food production, storage and processing; and increase job creation.¹⁷

A whole-system approach is needed to improve the health and well-being of Ontarians and support our food systems. Programs and initiatives that impact Ontario's food systems are presently offered by several organizations and ministries, as well as at various levels of government, but an overall cohesive food and nutrition strategy for the province is lacking. Improved linkages and strengthened multi-sectoral planning through the strategy can improve the outcomes of various efforts and lead to a healthier and more productive population, as well as lower healthcare and social costs downstream. This strategy suggests improving collaboration and coordination around shared objectives by investing differently. Through existing and new policies and programs, and sharing objectives and resources, there is potential to realize more gains and reduce duplication. Working together to prioritize actions, address gaps and minimize disparities will result in healthier food systems and Ontarians.

ONTARIO FOOD & NUTRITION STRATEGY FRAMEWORK OVERVIEW



MANDATE

- To promote wholistic health and well-being
- To reduce the burden of obesity and chronic disease on people in Ontario and the Ontario healthcare system
- To strengthen the Ontario economy and the resiliency of food systems

MISSION

- A cross-government, multi-stakeholder coordinated approach to food policy development
- A plan for healthy food and food systems in Ontario

VISION

- Productive, equitable and sustainable food systems that support the wholistic health and well-being of all people in Ontario

STRATEGIC DIRECTIONS:

HEALTHY FOOD ACCESS

People in Ontario have access to and the means to choose and obtain safe, healthy, local and culturally acceptable foods.

FOOD LITERACY & SKILLS

People in Ontario have the information, knowledge, skills, relationships, capacity and environment to support healthy eating and make healthy choices where they live, gather, work, learn and play.

HEALTHY FOOD SYSTEMS

Ontario has diverse, healthy and resilient food systems that promote health and contribute to an equitable and prosperous economy.

EXPECTED OUTCOMES

- Increased individual, household and community food security
- Healthy, local food is available and accessible in all communities
- Increased food literacy and food skills
- Increased consumption of healthy and local food
- Engaged citizens
- Improved wholistic health outcomes
- Increased demand for and production of healthy and local food
- Strengthened economy
- Safe and resilient food systems

STRATEGIC DIRECTION 1 HEALTHY FOOD ACCESS

- 1.1 Increased individual and household food security
- 1.2 Increased access to safe, healthy, local and culturally acceptable food
- 1.3 Increased use of healthy, local food by public sector organizations
- 1.4 Increased distribution and promotion of equitably-priced healthy, local food
- 1.5 Reduced access to high calorie, low-nutrient food, beverages and snacks
- 1.6 Enhanced food access through land use management and planning

STRATEGIC DIRECTION 2 FOOD LITERACY AND SKILLS

- 2.1 Increased healthy eating knowledge, skills and capacity
- 2.2 Increased access to public information about healthy eating through retailers and food services
- 2.3 Restricted advertisement of unhealthy food and beverages to children
- 2.4 Increased availability of professional nutrition services
- 2.5 Enhanced services for at-risk populations

STRATEGIC DIRECTION 3 HEALTHY FOOD SYSTEMS

FOOD PRODUCTION AND ECONOMIC DEVELOPMENT

- 3.1 Improved economic viability and sustainable livelihoods
- 3.2 Increased protection and use of farmland, forests, waterways and urban land for food production
- 3.3 Enhanced recruitment and skills building to expand food systems workforce
- 3.4 Increased production of healthy and safe food
- 3.5 Increased protection for farm and food workers

FOOD SYSTEMS EXCELLENCE AND INNOVATION

- 3.6 Increased demand and preference for Ontario food in all markets
- 3.7 Improved regulation, compliance and opportunities for innovation
- 3.8 Increased innovative financing
- 3.9 Improved infrastructure and resources to support growth

ENVIRONMENTAL PROTECTION

- 3.10 Reduced food waste
- 3.11 Increased protection and conservation of land, soil, water and biodiversity
- 3.12 Increased sustainability and safety of fisheries
- 3.13 Improved management of forest and fresh water food systems
- 3.14 Increased recognition of ecosystem goods and services

Lifestyle changes related to increased physical activity, healthy eating, reduction in high-risk drinking, and the elimination of tobacco use can prevent 80 per cent of heart disease, stroke and type 2 diabetes cases. These same factors, in addition to healthy public policies, can also prevent half of all cancers in Ontario

KEY STATISTICS

- In Ontario, 12.5 per cent of households are food insecure, putting them at increased risk of chronic health problems.¹¹
- Individuals and families who receive support from social assistance programs do not have sufficient income to pay for shelter, food and basic needs.²⁴
- Overweight and obesity rates for children, ages two to 17 years, are higher in Ontario (27.5 per cent) than Alberta (21.8 per cent), Quebec (22.6 per cent) and British Columbia (26.4 per cent).²⁵
- Chronic diseases, including cancer, cardiovascular disease, chronic respiratory disease and diabetes are the leading causes of death in Ontario.⁴
- The Ontario government spends nearly 50 per cent of the provincial budget on healthcare to treat those who are already sick, but only 0.35 per cent of the current budget is set aside for health promotion to prevent illness and chronic disease.^{26, 27}
- Lifestyle changes related to increased physical activity, healthy eating, reduction in high risk drinking, and the elimination of tobacco use can prevent 80 per cent of heart disease, stroke and type 2 diabetes cases. These same factors, in addition to healthy public policies, can also prevent half of all cancers in Ontario.^{28, 29}
- Food skills and healthy eating are lacking in children and adults alike.³⁰
- Vegetable and fruit consumption is an indicator of diet quality; intakes have been declining and only 38.1 per cent of individuals aged 12 years and over in Ontario report consuming vegetables and fruit five or more times per day.⁸
- The agriculture and agri-food sector is the largest employer in Ontario, employing 11 per cent of the work force.^{17, 18}
- One-third of the fruit and over 40 per cent of the vegetables grown in Canada are produced by Ontario farmers; however, the closing of food processing facilities is resulting in a decline in produce cultivation.³¹
- In the past 20 years, 25,000 Ontario farms have been lost due to increases in the size of farms and the use of farmland for other purposes.³¹



**STRATEGIC
DIRECTION**



HEALTHY FOOD ACCESS

PEOPLE IN ONTARIO SHOULD HAVE ACCESS TO & THE MEANS TO CHOOSE AND OBTAIN SAFE, HEALTHY, LOCAL & CULTURALLY ACCEPTABLE FOOD.

Diet can greatly impact health and well-being, yet people in Ontario can face many complex barriers in accessing healthy foods. Addressing these challenges involves ensuring that food is economically and physically accessible, culturally acceptable and sustainably sourced so that long-term food security can be achieved for everyone in the province.

Economic constraints prevent many households in Ontario from purchasing healthy, culturally acceptable food, while the food environment can provide minimal access to appropriate healthy food outlets and food options. Furthermore, sustainable production and distribution practices, and land conservation planning need to be considered for long-term access to healthy, local food for present and future generations.

Improving long-term access to healthy food will require a multi-pronged approach to programs and policies that will address the unique needs of individuals, households and communities throughout the province.

Diet can greatly impact health and well-being, yet people in Ontario can face many complex barriers in accessing healthy foods.

ACTION AREA 1.1

INCREASED INDIVIDUAL & HOUSEHOLD FOOD SECURITY

Food insecurity is defined as "the inability to acquire or consume an adequate diet quality or sufficient quantity of food in socially acceptable ways, or the uncertainty that one will be able to do so."³² In 2013, 12.5 per cent of households in Ontario experienced income-related food insecurity, with experiences ranging in severity from worrying that food will run out and not having money to purchase more (marginal), to going a whole day without eating (severe).¹¹ While these data do not include people living on First Nations reserves and Crown lands or people who are in the Canadian Forces, the 2008/10 First Nations Regional Health Survey found that close to half (47.6 per cent) of First Nations people living on-reserve were moderately to severely food insecure.³³ First Nations living off-reserve and Métis people also experienced higher rates of food insecurity in 2008/10 than the rest of the Ontario population, at 19 per cent and 13 per cent respectively.³³ These numbers do not include people who experienced marginal food insecurity, meaning rates of food insecurity are even higher than reported for First Nations and Métis peoples.

The cost of a Nutritious Food Basket, calculated annually by Ontario's public health units, demonstrates that social assistance rates do not provide adequate support to cover all costs of living and food. For example, in 2015, the Eastern Ontario Health Unit calculated that a family of four receiving Ontario Works would have \$391 remaining monthly for all other expenses after rent and food were accounted for; a single person receiving Ontario Works would not have any money left over and would need an extra \$128 per month just to pay for both expenses.³⁴ Evidence of this shortfall is demonstrated by the 69.5 per cent of social assistance recipients reporting experiences of food insecurity.¹³

While social assistance recipients are particularly vulnerable, 57.5 per cent of households in Ontario that are food insecure obtain income from employment, so it is not solely an issue with social assistance rates.¹¹ High costs of living, coupled with insufficient wages, underemployment, job insecurity and inadequate social assistance systems, which are worsened by systemic inequality, have contributed to a reality where many households have to worry about providing enough food or go without eating altogether. As a result, food insecurity greatly affects health and it typically results in poor diet quality^{35, 36} and nutrient inadequacy.³⁶ It is also associated with and exacerbates certain physical and mental health conditions.¹³ These health impacts consequently affect healthcare use and costs; healthcare costs for food insecure households are 16 per cent (\$235) to 76 per cent (\$1,092) more per year than food-secure households (for marginal and severely food insecure households, respectively).¹⁵

High costs of living, coupled with insufficient wages, underemployment, job insecurity and inadequate social assistance systems, which are worsened by systemic inequality, have contributed to a reality where many households have to worry about providing enough food or go without eating altogether. As a result, food insecurity greatly affects health and it typically results in poor diet quality and nutrient inadequacy.



ACTION AREA 1.2

INCREASED INDIVIDUAL & HOUSEHOLD FOOD SECURITY *CONTINUED*

Rural and northern regions of Ontario face greater barriers in accessing nutritious food due to reduced physical access and exceedingly high costs associated with transportation. In 2015, Nutritious Food Baskets in northern Ontario cost an average of \$55.77 more per month for a family of four than in southern Ontario.³⁷ These disparities indicate a need to account for local and regional living costs when addressing food insecurity and livable incomes.

Ensuring that all Ontarians are able to afford and access healthy food is required. Policies and strategies need to be designed to address poverty, the root cause of individual and household food insecurity.³⁸ This requires actions to improve household income, such as through basic income guarantee, affordable housing, living wages and job security, so that all people are able to afford food. Policy interventions designed to reduce household food insecurity at the provincial and federal levels, can greatly improve the health and well-being of Ontarians and offset considerable public expenditures in healthcare.¹⁵

INCREASED ACCESS TO SAFE, HEALTHY, LOCAL & CULTURALLY ACCEPTABLE FOOD IN COMMUNITIES, ESPECIALLY FOR VULNERABLE POPULATIONS

Community food security occurs when “all community residents obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for everyone.”³⁹ It centres on food system initiatives that are comprehensive, long-term and sustainable, and prioritizes environmental health, economic viability and social equity so that food is accessible to all people in the community.³⁹ Increasing community food security should centre on implementing programs driven by the community to ensure that decisions meet the community’s needs and the initiatives build on community knowledge.⁴⁰

Numerous factors influence vegetable and fruit consumption—an indicator of overall health—including physical access to food; cost; food and nutrition knowledge; and food skills, such as shopping, budgeting, food preparation and storage.⁴¹ Building food environments that are supportive of healthy eating in community institutions, such as childcare, preschools, schools, universities, long-term care facilities, recreation centres and workplaces, can ensure that healthy, local, culturally acceptable

1.1 SUGGESTED ACTIONS

- Address the root cause of food insecurity by supporting policies to improve individual and household income and enable low income residents to afford healthy food (e.g., basic income guarantee, adequate minimum wage and social service allotment, affordable housing, affordable childcare, seniors care, public transportation, education and training, and employment).
- When setting the rates for social assistance, minimum wage and the Special Diet Allowance, ensure nutritious food is accessible to all people in Ontario by using the cost of the Nutritious Food Basket and other locally appropriate costing exercises, in addition to the cost of housing (reported by the Canada Mortgage and Housing Corporation).

Community food security occurs when “all community residents obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for everyone.”³⁹ It centres on food system initiatives that are comprehensive, long-term and sustainable, and prioritizes environmental health, economic viability and social equity so that food is accessible to all people in the community.

food is physically accessible and affordable. One way to achieve this is implementing an Ontario-wide universal student nutrition program in public schools to provide all students with nutritious foods every day. Student nutrition programs have shown to increase students’ success in school, improve diet quality, and can impact food choices outside of school.⁴²⁻⁴⁴ While the Government of Ontario has made a significant investment in student nutrition programs, the funding is not universally provided to all Ontario public schools nor to schools in all First Nations communities.^{45,46} Community programs, such as community kitchens, gardens and fresh food boxes, have also shown to provide many benefits, including improved physical access to healthy, local food and food literacy education, as well as reduced social isolation.⁴⁷⁻⁵⁰

Initiating opportunities for First Nations, Inuit and Métis peoples’ to access traditional foods in their communities is another example that would improve community food security through access to healthy, local and culturally acceptable foods. Traditional foods are nutrient-dense and research shows that on days when they are consumed, diet quality is superior in comparison to days when market foods are consumed because market foods are higher in sodium, sugar and saturated fat.⁵¹ First Nations, Inuit and

Métis peoples’ access to traditional foods has declined due to increased costs, ecological degradation, regulatory barriers to traditional food gathering practices and loss of knowledge.^{51,52} Much work has been done already to recognize the importance of forest and freshwater foods in the Nishnawbe Aski Nation Food Strategy and in other northern and rural areas of Ontario.⁵³ Development of a provincial Indigenous food and nutrition strategy is recommended by Cancer Care Ontario to improve healthy eating and reduce the risk of chronic disease in First Nations, Inuit and Métis communities.⁵⁴ Support for First Nations, Inuit and Métis communities throughout Ontario is needed to strengthen community food security and make healthy, traditional food more accessible.

Strengthening community food security provides community members with a place to access safe, nutritious, culturally acceptable foods, while respecting ecological health. Although community programs are important for community resiliency and offer many benefits to members, they have not shown to improve household food insecurity status, and therefore must be implemented alongside initiatives that address the root cause of food insecurity: poverty.⁵⁵

1.2 SUGGESTED ACTIONS

- Increase the availability of equitably-priced, safe, healthy, local and culturally appropriate food in childcare, preschools, schools, colleges, universities, long-term care facilities, hospitals, recreation centres, workplaces and other public facilities.
- Establish a universal student nutrition program in all Ontario public schools and in all First Nations communities.
- Support and ensure accountability of programs that increase physical and economic accessibility of healthy, safe, culturally appropriate food to rural and remote regions of Ontario.

ACTION AREA 1.3

INCREASED USE OF HEALTHY & LOCAL FOOD BY PUBLIC SECTOR ORGANIZATIONS

Public sector organizations have the ability to start shifting the food environment by showcasing healthy and local foods in their facilities and acting as role models for other organizations.⁴ Healthy food procurement policies have shown to have the intended outcome of increasing availability and the purchasing of healthy foods.⁵⁶ Implementing these policies in public sector organizations ensures that healthy foods are prioritized and provided as options in childcare, cafeterias and other facilities, and can have a positive impact on the diets of visitors and employees. The Champlain Cardiovascular Disease Prevention Network is an example of an organization that has developed healthy food guidelines as part of their Healthy Foods in Hospitals initiative. After an extensive review of hospital

needs in the region, and accounting for budgetary and facility feasibilities, guidelines were set to improve the food options available through cafeterias, which hospitals are now working towards.⁵⁷⁻⁵⁹

In addition to improving the health profile of foods offered in public sector organizations and facilities, sourcing healthy foods from local producers can have beneficial outcomes. Local food procurement policies can strengthen the local food economy as demand increases, which can provide economic, environmental and societal benefits for producers and people in Ontario.⁶⁰ In 2013, the Government of Ontario passed the Local Food Act, which encourages use of local food by public sector organizations.¹⁹ The City of Toronto created local food procurement guidelines for their facilities, including shelters, childcare programs and long-term care facilities.⁶¹ Sick Kids Hospital's Terrace Cafe in Toronto has become Feast ON certified,

1.2 SUGGESTED ACTIONS *CONTINUED*

- Support community food access and production solutions that promote the availability and affordability of fresh, locally or regionally grown food, and create opportunities to implement and expand these initiatives (e.g., fresh vegetable and fruit boxes, preparation of traditional food, farmer's markets, community food hubs, multicultural community gardens).
- Support community-based social enterprises that increase access to healthy, safe, affordable and culturally appropriate food.
- Ensure that food safety, quality and sustainability systems are in place and clearly documented, and that food quality is promoted.
- Conduct research that looks into the effect of subsidizing nutritious ingredients, beverages and food.

Local food procurement policies can strengthen the local food economy as demand increases, which can provide economic, environmental and societal benefits for producers and people in Ontario.

meaning that a minimum of 25 per cent of the foods and beverages procured are from Ontario sources.⁶² Other examples of institutions adhering to local food procurement guidelines include the University of Toronto⁶³ and Halton Region.⁶⁴ Support for local food in several public sector institutions has been provided by the Greenbelt Fund through the Broader Public Sector Investment Fund.⁶⁵ The implementation of healthy food guidelines and local food procurement initiatives support organizations in providing healthy options, while at the same time supporting local agriculture and the local economy, with the ultimate goal of improving the health of employees and visitors.

1.3 SUGGESTED ACTIONS

- Develop healthy, local and sustainable food procurement targets for public sector institutions (e.g., childcare, schools, colleges, universities, hospitals, long-term care, day care and other public sector food services).
- Provide incentives and training to enable public sector institutions to meet the healthy, local and sustainable procurement targets.



ACTION AREA 1.4

Distribution barriers are more prevalent in northern and remote communities in Ontario, especially when accessing fresh vegetables and fruit. When produce does arrive, it is often exceedingly costly to purchase.

INCREASED DISTRIBUTION AND PROMOTION OF EQUITABLY-PRICED, HEALTHY & LOCAL FOOD

For many people in Ontario, accessing healthy and/or local food can be a challenge due to a combination of economic and physical barriers. Likewise, getting produce to local market can also be a challenge for farmers and distributors, particularly smaller producers, due to infrastructure barriers, costs of transportation and staffing.⁶⁶ As local, sustainable agriculture initiatives continue to grow, investment in distribution systems will be required to improve both the economic viability of farmers and the diets of people in Ontario.

Distribution barriers are more prevalent in northern and remote communities in Ontario, especially when accessing fresh vegetables and fruit. When produce does arrive, it is often exceedingly costly to purchase. For example, the average Nutritious Food Basket in northern Ontario costs \$669.24 more for a family of four over the course of the year in comparison to the average Nutritious Food Basket in southern Ontario.³⁷ Support is needed to improve distribution and thereby access to equitably-priced local produce in northern and remote regions of Ontario. The Thunder Bay Food Strategy, the Nishnawbe Aski Nation Food Strategy and regional food hubs are examples of initiatives that are trying to improve food accessibility in remote regions.^{53,67,68}

1.4 SUGGESTED ACTIONS

- Enact policies that ensure that the cost of food is equitable in all communities in Ontario.
- Provide infrastructure that ensures the efficient storage, transportation and distribution of food to all areas of Ontario.
- Support farmers and processors in delivering healthy, local and sustainable food in demand at equitable prices.
- Market and promote healthy, local and sustainable food with existing and new partners and communities.
- Identify healthy, local food clearly to consumers through labels and signage.

ACTION AREA 1.5

REDUCED ACCESS TO HIGH CALORIE, LOW-NUTRIENT FOOD, BEVERAGES & SNACKS

Food environments can be defined “by geographic access to food in a community or neighbourhood, consumer experiences inside food outlets, services and infrastructure in institutional settings, or the information available about food.”⁶⁹ Healthy food environments provide nutritious foods, such as vegetables and fruit, in locations that are physically accessible and at prices that are affordable.⁶⁹ The food environment impacts the kinds of foods that are available and can influence food choices and, ultimately, health. It has been found that food environments that provide greater access to healthy foods, such as grocery stores providing vegetables and fruit, are linked to health and healthy weights, while food environments with more convenience stores, which sell less healthy, high-calorie, low-nutrient processed products, are linked to higher rates of overweight and obesity.⁶⁹ The need to plan for access to healthy foods is an important consideration for the health of communities because it contributes to creating healthy food environments.

Access to high-calorie, low-nutrient items has become the norm in our society; these items are frequently stocked in cafeterias and vending machines in institutions such as

schools, workplaces, community and recreation centres and hospitals. The high prevalence of these items at competitive prices makes healthy eating a challenge.⁷⁰ Changing the food environment in Ontario’s institutions with healthy eating policies that require healthy food to be available will improve access to nutritious foods and can affect overall diet.^{71,72} In 2011, the Ministry of Education implemented PPM 150, the School Food and Beverage Policy, which has greatly changed the food landscape in school cafeterias, meal programs and vending machines throughout Ontario by requiring healthy food and beverages to be provided on school premises.

Harmonization of healthy food policies across public facilities, such as childcare, student nutrition programs, schools and recreation centres, is needed to further strengthen this change in the food environment and will contribute to making healthy options the preferred and easiest choice. There have been challenges with the implementation of the School Food and Beverage Policy, such as ensuring that healthy food is appropriately priced and financially accessible. Therefore, implementation support for initiatives, like this policy, is required to ensure that they meet their full potential and successfully create a healthy food environment.⁷³

1.5 SUGGESTED ACTIONS

- Implement harmonized policies across public facilities to reduce the availability of high-calorie, low-nutrient food, beverages and snacks (e.g., childcare, preschool, elementary and high schools).
- Conduct research that measures the effect of taxing non-nutritious ingredients, food, beverages and snacks.

ACTION AREA 1.6

REDUCED ACCESS TO HIGH CALORIE, LOW-NUTRIENT FOOD, BEVERAGES & SNACKS *CONTINUED*

In addition to changing the food landscape, there is also emerging research on the taxation of non-nutritious foods and beverages.^{74,75} The implementation of these taxes has shown to have some effect on purchasing behaviour, particularly with sugar-sweetened beverages.⁷⁴ Additionally, subsidizing vegetables and fruit has shown to increase consumption and can make these healthy options more financially accessible to the population.⁷⁴ Recently, the World Health Organization and Dietitians of Canada made recommendations to implement taxes on sugar-sweetened beverages to reduce their intake by children and adolescents in efforts to end childhood obesity.^{76,77} Further research is needed to assess outcomes on behaviours and health, and on the impact of the potential inequitable distribution of these types of policies. Policies and initiatives can create a food environment in Ontario that is supportive of healthy eating and allow food to be financially accessible by everyone in the province.

ENHANCED FOOD ACCESS THROUGH MUNICIPAL, REGIONAL & COMMUNITY LAND USE MANAGEMENT & PLANNING

The resiliency of our food systems relies on our ability to manage and plan for sustainable land use. Vast areas of land around urban centres have already been sold to developers.⁷⁸ The shortage in farmland this development has created is an immediate problem and it will worsen as demand for local food and productive farmland increases. Damaging the land, such as through land development, will reduce resiliency of the local food system through the more limited ability to produce food, affecting farmers' livelihoods and the widespread impacts the food systems have on the economy.¹⁷ As the cost of land continues to increase, the need for land use planning and an agricultural lens in policy development at the community, municipal and regional levels will be imperative to ensure that land is protected for future use in food production. A 2015 coordinated review was the first ever to look across jurisdictions in the Greater Golden Horseshoe area with an aim to solve planning issues around population and employment growth, while protecting farmland, water resources and natural areas within the region.⁷⁹ Further work of this nature throughout the province can help address regional land use management and planning. Many policy options are also available to protect land and incentivize local food systems in municipalities, regions

1.6 SUGGESTED ACTIONS

- Engage with municipal, regional and community planning departments and committees in planning for food access.
- Support the development and implementation of community-based land use management plans and policies for food access, in addition to production.
- Conduct a policy review of Ontario regulations to identify contradictory regulations and encourage community planning, zoning and funding that supports healthier food choices, develops and promotes the local food sector, and reduces access to unhealthy food choices (e.g., food deserts, food swamps).
- Support the development and implementation of municipal, regional and community food councils that can advise on food access and policy creation.



**The resiliency
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and communities, including land planning and zoning, tax assistance and incentives to invest in agriculture.⁸⁰

Additionally, distribution channels and outlets for food need to be effectively planned to ensure that people throughout Ontario have adequate access to healthy food outlets instead of unhealthy options⁸¹ because the food environment can impact health. Of particular concern are food swamps, or places where there is an abundance of unhealthy food options, such as fast food outlets and convenience stores that are located in low-income communities.⁶⁹ At the local level, municipalities can implement policies and other incentives to draw food retailers, such as grocery stores or smaller markets, to areas that currently lack food outlets selling healthy foods, including vegetables and fruit. Tools, such as zoning and bylaws, might be able to help increase the number of healthy food outlets and limit food swamps.⁶⁹

Because the geographic regions of Ontario have vastly different needs and unique opportunities, ability for planning and management decisions to be made at local levels is also important. Food policy councils have had considerable success in changing the discourse of food and farming at a local level over the past 30 years.⁸² More investment and support for food policy councils can reduce challenges and improve their effectiveness in creating policy change.^{82,83} In addition, First Nations, Inuit and Métis peoples should be involved from the onset in assessment and implementation of land use policies to help reduce regulatory barriers and support traditional food-gathering practices. The Nishnawbe Aski Nation Food Strategy is one initiative that is addressing local food procurement and transportation issues in its communities.⁵³ Engaging with municipal, regional and community organizations can help plan and address specific food access needs.



**STRATEGIC
DIRECTION**

FOOD LITERACY AND SKILLS

PEOPLE IN ONTARIO SHOULD HAVE THE INFORMATION, KNOWLEDGE, SKILLS, RELATIONSHIPS, CAPACITY & ENVIRONMENTS TO SUPPORT HEALTHY EATING & MAKE HEALTHY CHOICES WHERE THEY LIVE, GATHER, WORK, LEARN & PLAY.

Food literacy and food skills have been declining in the Canadian population,³⁰ but they can help people in Ontario eat healthy and make healthy choices throughout their lives. Food literacy encompasses a wide range of knowledge and skills related to healthy food choices, including knowing how foods are grown, and practices related to choosing, preparing and consuming food. Providing information and creating supportive environments for people to gain and use food knowledge and skills is critical in furthering the ability of Ontarians to make healthy choices throughout their lives. Presently, 65.2 per cent of adults in Ontario consume less than five servings of vegetables and fruit per day, which is an indicator of poor diet quality.^{4,23} Canadians who habitually write a grocery list or select foods based on nutrition labels are more likely to report consuming five or more vegetables and fruit per day compared to those who do not have these habits.⁸⁴ Involving adolescents in food preparation can have positive impacts on food choices, resulting in lower intakes of fat and higher intakes of vegetables and fruit, fibre, folate and vitamin A.⁸⁵ Establishing programs to further the food knowledge and skills of people in Ontario, increasing access to nutrition services, providing public information about healthy eating and banning advertising of food, beverages and snacks to children are the building blocks for improving food literacy, skills, and the health of Ontarians.

Providing information and creating supportive environments for people to gain and use food knowledge and skills is critical in furthering the ability of Ontarians to make healthy choices throughout their lives.



ACTION AREA 2.1

INCREASED KNOWLEDGE, SKILLS & CAPACITY FOR ALL PEOPLE IN ONTARIO TO EAT HEALTHY THROUGHOUT THEIR LIVES

Food and nutrition knowledge and skills are integral to the health and well-being of people in Ontario throughout their lives. Nutrition knowledge and food skills have shown to improve diets by increasing the quantity of vegetables and fruit consumed.^{86,87} A perceived lack of food skills can act as a large barrier to preparing food;^{30,88} however, improved food skills and confidence can reduce the frequency of fast food purchased and increase the amount of food prepared at home.⁸⁵

Because long-term habits are formed early in life it is particularly important for young people to learn about food and to be involved in food preparation. Adolescents who help with food preparation are more likely to eat vegetables and fruit as

Because long-term habits are formed early in life it is particularly important for young people to learn about food and to be involved in food preparation.

2.1 SUGGESTED ACTIONS

- Ensure widespread promotion and support for the provision of pre and post-natal nutrition education, breastfeeding and infant feeding programs. Address individual and community barriers to low breast feeding rates.
- Promote healthy eating for preschoolers and young children at home and outside of the home, such as in childcare centres, through parent and childcare provider nutrition education, food skills education and cue-based feeding training.
- Include evidence-based food literacy education about nutrition, food, growing, harvesting, gathering

ACTION AREA 2.2

they age.⁸⁹ In addition to knowledge, sufficient food preparation capacity is also required, including having proper equipment, clean and safe work spaces, and the financial means to obtain and prepare healthy food.⁹⁰ Furthermore, overall self-esteem and confidence in food skills are as important in successfully preparing healthy food as the ability to plan and budget for meals.⁹⁰ Increasing knowledge, skills and capacity can contribute to healthier diets, but will require information and resources to be accessible and meet the unique needs of people in Ontario.

The integration of food skills into the curriculum, called for by organizations such as the Ontario Home Economics Association,⁹¹ Sustain Ontario,⁹² Public Health Ontario,⁴ Cancer Care Ontario⁴ and the Ontario Federation of Agriculture,⁹³ is one way to improve food and nutrition knowledge and skills for future generations in Ontario. Food literacy goals were released by the Ontario government in January 2015; however, they focused on local and not necessarily healthy foods. No specific food literacy programs were tied to these targets.⁹⁴

INCREASED ACCESS TO PUBLIC INFORMATION ABOUT HEALTHY EATING THROUGH RETAILERS & FOOD SERVICE

The provision of nutrition information at points of purchase by food retailers and food service operations can help people in Ontario make informed decisions when selecting food.

Displaying caloric content alone on menus has shown to have little effect on food purchases.^{95,96} However, the availability of caloric content with the inclusion of information that provides either context (e.g., recommended daily allowances) or an assessment of the menu item (e.g., traffic light symbols) has shown to positively affect choices in adult and adolescent consumers, decreasing overall calories purchased and consumed.⁹⁶

Bill 45—the Making Healthier Choices Act (passed May 2015)—will require food service providers with 20 or more locations in Ontario to post calories on menus by January 1, 2017.⁹⁷ The implementation of a menu labelling system that is meaningful to the public

2.1 SUGGESTED ACTIONS *CONTINUED*

- and producing food, and food skills development as a mandatory part of the curriculum at all grade levels.
- Provide and support economically accessible public health and community-based food literacy programs for individuals and households to develop food skills (e.g., growing, harvesting, hunting, selecting, preparing, and safety) in school and community settings.
- Support development of food skills and nutrition education resources and programs for use in preschools, schools, workplaces, and community and recreation facilities that meet each community's needs.
- Provide support to increase healthy eating knowledge and food skills through an ongoing marketing and promotion campaign in collaboration with existing and new partners and communities.
- Provide access to free nutrition information and education about healthy eating (e.g., EatRight Ontario, local public health units, Ontario Public Health Association – Nutrition Resource Centre, Community Food Advisor program).

Consistent use of labelling systems across retailers would lessen confusion and help make it easier for people to understand and use labels. Providing easily understandable nutrition information about food options would aid Ontarians in making informed decisions about their food choices.

INCREASED ACCESS TO PUBLIC INFORMATION ABOUT HEALTHY EATING THROUGH RETAILERS & FOOD SERVICE *CONTINUED*

could inform people of healthier options at the point of decision in food service operations. In addition to providing patrons with valuable nutrition information for decision-making, the introduction of mandatory menu labelling may have the benefit of altering the types of products provided by food services. In anticipation of menu labelling law implementation, new menu items in some food service chains have been found to have fewer calories than old menu items.⁹⁸ Similar results have also been seen in food service operations with chains in jurisdictions with and without laws; healthier options were more likely to be introduced in establishments with labelled menus.⁹⁹ Further efforts to make menu labelling more informative with respect to nutrients beyond calories, such as sodium, would be beneficial to consumers interested in making healthy choices. Results from a 2014 study showed that consumers ordered meals with significantly less sodium when sodium information was provided on a menu compared to when only calorie information was provided.¹⁰⁰

Support for menu labelling in chain retailers has come from organizations such as the Ontario Public Health Association,¹⁰¹ the Ontario Society for Nutrition Professionals in Public Health,¹⁰² the Centre for Science in the Public Interest,¹⁰³ Cancer Care Ontario,⁴ Dietitians of Canada,¹⁰⁴ Public Health Ontario,⁴ and the Ontario Ministry of Health and Long-Term Care's Healthy Kids Panel.⁴³ These organizations also support an evaluation of this policy, as well as providing customers with information to help them understand how to apply the posted calorie information to their own particular needs. In addition, many of these organizations support the provision of sodium values on menu labels in chain retailers.

Food retailers should provide information about healthy eating. Labelling systems for grocery stores and front-of-packages have shown to help with food selection; however, further research is needed.¹⁰⁵ Consistent use of labelling systems across retailers would lessen confusion and help make it easier for people to understand and use these labels.¹⁰⁵ Providing easily understandable nutrition information about food options would aid Ontarians in making informed decisions about their food choices.

2.2 SUGGESTED ACTIONS

- Require food manufacturers, retailers and food services to provide consistent, clear and visible nutrition information about the food they sell (e.g., align their efforts with existing groups working on this issue) to enable consumers to make informed and healthy food choices.
- Implement a nutrition communications strategy and education program to increase awareness and educate the public on nutrition labelling and making healthier choices (e.g., local public health units, Nutrition Resource Centre, Community Food Advisor, EatRight Ontario, Dietitians of Canada's eaTracker and private, voluntary initiatives).

ACTION AREA 2.3

RESTRICTED ADVERTISEMENT OF UNHEALTHY FOOD, BEVERAGES & SNACKS TO CHILDREN (UNDER 12)

Marketing is a broad term that describes the processes used to create awareness in consumers; it includes advertising, as well as product promotion, packaging, price and placement.¹⁰⁶ The World Health Organization has been a strong advocate in reducing the impact of marketing of unhealthy food and beverages to children, setting out 10 recommendations in 2010¹⁰⁷ and calling for their implementation internationally in 2016.⁷⁶ Targeted marketing of unhealthy food, beverages and snack products to children is frequently used to capture their attention and improve sales. Presently, there are several techniques used to target children in advertisements, including using characters, health claims and incentives, as well as selling the ideas of fun and tasty products.¹⁰⁸ Children are particularly vulnerable to the persuasion of advertising because those under eight years of age are unable to identify its intended purpose.¹⁰⁹ Furthermore, evidence shows that advertising greatly affects children's perspectives; it increases preferences and demand for unhealthy products in children ages two to 11 and influences short-term consumption patterns.¹⁰⁹

The repercussions of advertising have the potential to negatively affect food choices and impact future health outcomes.

A ban on the advertising of food, beverages and snacks to children less than 12 years of age (at a minimum) is the only way to ensure total compliance from all corporations and to reduce loopholes that could be present within restriction guidelines. Current voluntary bans by corporations have shown little change in overall exposure to children.¹¹⁰ Implementation of a ban in Ontario would follow similar policies implemented in Quebec, the United Kingdom, Sweden and Ireland.¹¹¹

Restricted advertisement of unhealthy beverages and food to children and youth has been called for by provincial, national and international organizations, including the Ministry of Health and Long-Term Care's Healthy Kids Panel,⁴³ the Ontario Society for Nutrition Professionals in Public Health,¹¹² the Heart & Stroke Foundation,¹¹³ the Canadian Cancer Society,¹¹⁴ Dietitians of Canada,¹¹⁵ Centre for Science in the Public Interest,¹¹⁶ the World Health Organization^{76,107} and the Institute of Medicine.¹⁰⁹ The long-term effect of banning advertising has shown positive results in Quebec, with reductions in fast food purchases in French-speaking children.¹¹⁷ Banning advertisements of unhealthy food, beverages and snacks from children has the potential to positively influence the diets of children.

2.3 SUGGESTED ACTIONS

- Ban commercial advertising of food, beverages and snacks targeted at children and youth under 12 years of age (at a minimum).
- Continue research that clarifies the link between food advertising to children and children's food habits.



ACTION AREA 2.4

INCREASED AVAILABILITY OF PROFESSIONAL NUTRITION SERVICES IN HEALTH, COMMUNITY & WORK SETTINGS

Professional nutrition services provide people with access to accurate and reliable information that can be used to support healthy behaviours. Registered dietitians support people in making changes to their diet and lifestyle in order to improve overall health. Dietary advice and nutrition education have shown to increase consumption of vegetables and fruit (and, consequently, overall dietary quality), and improve health markers for adults.^{118, 119} A literature review on the effects of nutrition counselling by dietitians found they can have a positive impact throughout the lifecycle, helping people to achieve a healthy weight, prevent or manage diabetes, and reduce the risk of heart disease.^{120, 121} Some improvements have been made to increase accessibility to dietitians in Ontario, including through online and telephone services,

such as EatRight Ontario, as well as through the inclusion of dietitians in family health teams and community health centres, which have proven to be effective.¹²⁰⁻¹²² Despite these efforts, there is still limited access to dietitians, with 43 per cent of physicians rating access as unsatisfactory.¹²³ Outside of services such as EatRight Ontario and family health teams, dietitians' services are not covered under the provincial health insurance plan and are often not included in private health plans, despite their ability to reduce sick days and health-related lost productivity by 64 per cent;^{124, 125} this lack of cost coverage makes dietetic services inaccessible to people who are unable to afford them. Improving coverage to dietetic services and increasing the number of dietitians available to the public will ensure better access to nutrition counselling and improved support for a healthy lifestyle.

2.4 SUGGESTED ACTIONS

- Increase public access to nutrition counselling services by registered dietitians (e.g., local public health units, family health teams, community health centres, hospitals, mental health programs, other community programs, EatRight Ontario, online, phone and texting services).
- Promote health in workplaces by providing access to professionally designed nutrition education programs and workplace nutrition policies.
- Include nutrition counselling by registered dietitians as an insured service in workplace insurance plans.

2.5 SUGGESTED ACTIONS

- Provide integrated, effective and non-stigmatizing screening, referral and intervention tools for healthcare professionals across the province for the prevention, early identification, and treatment of overweight/obesity and diet-related chronic disease.
- Ensure adequate resources for intervention for toddlers and preschoolers identified as high risk through NutriSTEP® screening across the province.
- Develop, evaluate and implement a screening and referral protocol for children (five and over), youth and adults at various life stages.

ACTION AREA 2.5

ENHANCED SERVICES TO IDENTIFY, REFER & TREAT PEOPLE AT EARLY RISK OF OBESITY OR CHRONIC DISEASE

Unhealthy eating is a risk factor for chronic disease.⁴ Because rates of chronic diseases have been steadily increasing,⁴ greater efforts are needed to identify people who are at early risk so appropriate supports can be implemented to improve lifelong health. Screening programs for toddlers (NutriStep®) and older adults (SCREEN®) have shown to be effective in identifying people who are at risk of poor nutrition and related health problems.^{126, 127} Similarly, diabetes is a disease that often goes undetected for many years, so identifying people at risk of developing type 2 diabetes allows for interventions to be implemented before conditions worsen. Guidelines for implementing promising practices in diabetes prevention were developed by the Nutrition Resource Centre and Physical Activity Resource Centre to help practitioners create effective health promotion programs to prevent diabetes.¹²⁸ Similar tools are needed for other populations, particularly school age children and youth in Ontario so nutrition concerns can be identified as early as possible and appropriate referrals made. Adequate service capacity is required to effectively address these concerns.

The use of multidisciplinary healthcare teams has shown to be able to reduce risk factors for chronic disease.¹²⁹ Providing appropriate supports from a team of professionals, including registered dietitians, can help people achieve a healthy lifestyle.^{120, 121} Increased support for this multidisciplinary approach to primary healthcare can help improve outcomes across the province.

Diabetes is a disease that often goes undetected for many years, so identifying people at risk of developing type 2 diabetes allows for interventions to be implemented before conditions worsen.

2.5 SUGGESTED ACTIONS *CONTINUED*

- Implement the NutriSTEP® screening program across the province to identify children 18-35 months and three to five years of age who are at increased risk of poor nutrition and activity or large amounts of sedentary behaviours. Expand the screening program to include local or provincial strategies for high risk children, or incorporate NutriSTEP® into existing programs and data collection (e.g., Healthy Babies Healthy Children, 18 month expanded visit, kindergarten registration) for intervention at these ages.
- Implement the SCREEN® (Seniors in the Community Risk Evaluation for Eating and Nutrition) screening tool across the province to identify older adults at risk of nutrition- related health problems.
- Provide sufficient resources so that all people in Ontario identified as at-risk for obesity or chronic disease have free access to multidisciplinary healthcare teams, which could include registered dietitians, certified personal trainers, exercise physiologists, social workers and mental health professionals.



**STRATEGIC
DIRECTION**

HEALTHY FOOD SYSTEMS

ONTARIO SHOULD HAVE DIVERSE, HEALTHY AND RESILIENT FOOD SYSTEMS THAT PROMOTE HEALTH & CONTRIBUTE TO AN EQUITABLE & PROSPEROUS ECONOMY.

The food systems comprise all activities from food production to food access and consumption, including: farming, food processing, food manufacturing, food distribution, food service operations and waste management. Ontario farms produce an array of different foods, such as grains, oilseeds, vegetables, beef and dairy, as well as countless other crops and animal products.^{17,31} Overall, Ontario's food systems employ 11 per cent of the paid labour force—approximately 767,000 people—generate more than \$63 billion in sales annually and produce many foods to support a healthy diet.¹⁷

To retain and expand this essential sector, increased support is needed to ensure that food systems are economically viable and environmentally sustainable. Stagnant commodity prices and high overhead costs of production can create stress for farmers. Conversely, income security can improve the health and well-being of farmers, entice new entrants and help improve the future of food production in Ontario. In addition, supportive infrastructure is needed to transport, process and package foods for local markets. Assessing regional infrastructure needs can help Ontario expand production and increase demand for its products. Innovation can also assist with production and processing practices, and improving the viability of Ontario's food systems. Lastly, the implementation of a variety of policies and tools can assist in protecting land, managing ecosystems, improving environmental outcomes and ensuring environmental resiliency so that Ontario's food systems can continue to flourish.

The environment is a non-renewable resource that needs to be respected and protected for long-term health of the planet and all of its ecosystems, including food systems.

ACTION AREA 3.1

To strengthen the viability of farming as a livelihood, policy tools and resources could be used to encourage business growth and investment in a variety of farm businesses, as well as to create a competitive business environment where farms can thrive and farmers receive adequate incomes.

IMPROVED ECONOMIC VIABILITY OF FOOD SYSTEMS & SUSTAINABLE LIVELIHOODS

Ontario's food systems have a significant economic impact, generating more than \$63 billion in sales, creating 767,000 jobs and boosting regional economies.¹⁷ Overall, the farming sector has a multiplier effect of 2.24 on the Ontario economy, meaning that for every dollar spent by the farming sector, 2.24 times that amount of money is circulated throughout other sectors.¹⁷ Because the sector has such a large impact, ensuring it remains economically viable is important to not only the producers of food, but also the many other sectors that it touches. To support the food and farming sector in Ontario, fair prices for products and, consequently, liveable wages need to be provided to food producers and others working in food systems. While retail prices of food have been increasing over the years, the amount farmers receive for their product has remained relatively low, causing many farmers to rely more on off-farm incomes.³¹ To strengthen the viability of farming as a livelihood, policy tools and resources could be used to encourage business growth and investment in a variety of farm businesses, as well as to create a competitive business environment where farms can thrive and farmers receive adequate incomes.¹³⁰

3.1 SUGGESTED ACTIONS

- Ensure that existing and new programs and policies support the economic viability of farms, including family farms, and support sustainable livelihoods of those working in food systems.
- Increase public and private investment in food innovation, research and development.
- Update programs with promising practices to enable farmers to mitigate the impacts of climate change.
- Maintain and improve programs that mitigate market risks.
- Develop and support regulations and reduce barriers for programs that make local and sustainable food more readily available.

ACTION AREA 3.2

INCREASED PROTECTION & USE OF FARMLAND, FORESTS, WATERWAYS & URBAN LAND FOR FOOD PRODUCTION

The environment is a non-renewable resource that needs to be respected and protected for long-term health of the planet and all of its ecosystems, including food systems. Ontario has a large percentage of Canada's Class 1 prime farmland, which faces significant pressures from urban development, particularly in southern Ontario.¹³¹ Between 2006 and 2011, 641 980 acres of census farmland was lost—approximately 350 acres per day.¹³² If this trend continues, local food production could be greatly impacted. The risk of losing even more productive farmland is high if proactive measures are not taken. The implementation of tools, such as planning and zoning, tax assistance and offering incentives to invest in agriculture, can protect Ontario's prime agricultural areas from development.⁸⁰ The Greenbelt Plan, implemented in 2005, permanently protects 1.8 billion acres of land and water in southern Ontario, much of which is prime agricultural land.¹³³

Similar methods should also be employed to protect forest and waterways from development and pollution, and increase urban land that is able to be safely used for food production.¹³⁴ In addition, farming and food production practices, including pesticide use, tillage and water consumption, can also affect viability of land and surrounding waterways.^{135, 136} Some tools are already available to support the environment. The Environmental Farm Plan program is an example of a tool that effectively supports the implementation of practices to mitigate potential negative impacts to the land and ecosystems; farmers report improved water and soil quality, among other benefits, from the Environmental Farm Plan implementation.¹³⁷ Alternative Land Use Services is another initiative that provides finances for farmers to retain and reconstruct natural areas on their land.¹³⁸ Improving how food is grown and harvested to reduce environmental impacts on the land and ecosystems is critical for the development of sustainable local food systems.

3.2 SUGGESTED ACTIONS

- Continue to adapt the Provincial Policy Statement to clearly direct the protection and preservation of viable farmland.
- Legislate clear and enforceable arrangements for the conservation of productive farmlands and ensure that farmland remains affordable.
- Support the creation of viable succession plans to support farmland, forests, waterways and urban land preservation.
- Develop city, regional and community land and waterway use policies for food production.
- Promote the use of available urban land for food production.
- Support innovation in the protection and use of land, waterways and forests for food acquisition and production.

ACTION AREA 3.3

The agri-food sector is in need of skilled workers with appropriate education to ensure that foods can be developed, processed, packaged and distributed to Ontarians as technology and food demands shift.

ENHANCED RECRUITMENT & SKILLS BUILDING TO EXPAND THE FOOD SYSTEMS WORKFORCE

Investment and support for food systems workers is vital for the continued growth and sustainability of Ontario's food systems. The number of farmers in Ontario is decreasing, and the current cohort of Ontario farmers is aging.³¹ Increased support, such as through financial and education initiatives, is needed for new farmers, such as young entrants and immigrant farmers, to enter the field. Some services for support, mentorship and coaching are available to new farmers;¹³⁹ however, sustained funding is needed for these initiatives. New farmers may also face barriers in continuing farming operations and accessing relevant resources that would be of help on their new farm.¹⁴⁰ In particular, there are many economic barriers to entering and staying in farming because it requires access to large amounts of capital for initial investment and ongoing operational costs.

The agri-food sector is also in need of skilled workers with appropriate education to ensure that foods can be developed, processed, packaged and distributed to Ontarians as technology and food demands shift. Having this type of expertise available requires expansion and promotion of current programs, such as culinary management, agriculture and food processing; investment in the development of new educational courses to address skill gaps;¹⁴¹ and educating young people about job opportunities in the food industry, such as quality assurance, food science, robotics and biotechnology. For every graduate of an agriculture and food university degree there are three agri-food jobs available and two for every diploma graduate in the field of study.^{142, 143} More scholarships, investment and support need to be provided to ensure that the agri-food sector has the workforce to sustain and expand the food systems in Ontario.

3.3 SUGGESTED ACTIONS

- Ensure that succession planning tools and mentoring programs are available to encourage generational farm transfers and diverse new entrants.
- Ensure that there is training and education available to farming and food enterprises to promote implementation of human resources best practices and training.
- Provide extension services, training, incentives and support to create sustainable livelihoods within food systems.
- Invest in education and training in food production and processing to promote careers in the food industry.
- Invest in education and training in traditional food, such as harvesting, hunting and gathering, to promote expansion of traditional procurement methods.

ACTION AREA 3.4

INCREASED PRODUCTION OF HEALTHY & SAFE FOOD

Continuing to provide healthy and safe food is key to the viability of Ontario's food systems. Farmers want to sell safe food products and consumers want to be certain that their food is healthy and safe. Presently, there is a large demand for local and healthy food; however, our food systems rely heavily on imported and non-regional products—particularly vegetables and fruit—due to weather restrictions on types of foods that can be grown (i.e., tropical produce), as well as the lack of facilities available to process and distribute products locally.^{17,66} While the climate is not conducive to growing certain tropical produce, it can support the growth of several world crops, such as Asian and Indian eggplant or okra.¹⁴⁴ Growing non-local crops is a market that can be expanded to meet the demands of Ontario's diverse population. Approximately 50 per cent of food imports could be produced within the province, which could increase the economic viability of Ontario's food systems and create more jobs.¹⁷

To increase the quantity of healthy food that is produced and sold locally, adequate infrastructure is needed to process, transport and distribute food throughout Ontario.¹⁴⁵ In addition, consumer food preferences are frequently changing. Producers and processors need to be able to respond to these changing demands in food and food products. Increased support and innovation are needed for food systems to make required recipe and processing changes to meet consumer demands.¹⁴⁶ Enhancing the food literacy of Ontarians is also important for supporting the expansion in production and sale of Ontario food. Educating people about food seasonality, as well as how to source, prepare and store local food for immediate and long-term consumption could change purchasing demands for local food. As part of the Local Food Act passed in 2013, the province established goals in January 2015 to increase knowledge about local foods.¹⁴⁷ Tools, such as Foodland Ontario's Availability Guide, can assist in increasing this knowledge.¹⁴⁸

3.4 SUGGESTED ACTIONS

- Support farmers and processors in producing healthy and safe in-demand products.
- Ensure that transportation, processing and distribution capacities are adequate and secure for perishable and non-perishable products.



ACTION AREA 3.5

Farm and food workers are vital to the success of local food systems. Food system work tends to be physically demanding; injuries occur every year that can affect farm and food systems workers' present and future livelihoods. These issues are heightened for migrant farm workers who often do a number of laborious tasks involved in the production of food, work long hours, and may have less health and safety training.

INCREASED PROTECTION & SUPPORT FOR FARM AND FOOD WORKERS TO ENSURE HEALTH & WELL-BEING

Farm and food workers are vital to the success of local food systems. Food system work tends to be physically demanding; injuries occur every year that can affect farm and food systems workers' present and future livelihoods. These issues are heightened for migrant farm workers who often do a number of laborious tasks involved in the production of food, work long hours, and may have less health and safety training.¹⁴⁹ Musculoskeletal conditions, as well as eye, respiratory and skin problems, are common when working in the farming sector.¹⁵⁰⁻¹⁵² While provincial healthcare is provided, numerous barriers exist to accessing healthcare, including language, timing for accessing services, and threats from employers regarding job security for present and future seasons. Furthermore, while healthcare coverage is available in Ontario, it can be limited when workers return to their home country, which can prevent proper treatment for long-term injuries that impede opportunities to work.¹⁵² Recommendations to increase protection and security for workers include a national strategy for agricultural labour, allowing workers to apply for permanent residence and having work permits that are not tied to employers so that workers can move to different farms, if needed.¹⁴⁹ Increased protection and support for the well-being of all farm and food workers, both migrant and local, will help Ontario's food systems succeed.

3.5 SUGGESTED ACTIONS

- Ensure proper training and equipment is provided to work safely.
- Enforce employment and occupational health and safety standards to ensure safe working and living conditions for all workers.
- Provide protection, support and compensation for injured workers and those in unsafe living and work conditions.

3.6 SUGGESTED ACTIONS

- Maintain identifiable standards for Ontario food products, including environmental, food safety and processing standards.
- Ensure that Ontario is recognized as a leader in environmentally sustainable food production.
- Promote the advantages of supporting local food to consumers.

ACTION AREA 3.6

INCREASED DEMAND & PREFERENCE FOR ONTARIO FOOD PRODUCTS IN ALL MARKETS

Ontario's agri-business sector produces many products, but the processing and demand for these products (e.g., live animals) is often out of province or country.¹⁷ When food is moved out of Ontario's food systems, it reduces the economic benefits for the province and its regions.¹⁷ Increased in-province demand could allow the sector to expand and provide Ontario farm and food workers with a viable livelihood. Demand could be increased through consumer awareness and interest in local food systems, and labelling products as local.¹⁴⁵ Foodland Ontario labels fresh Ontario products in stores, making it easier to identify Ontario products, and has achieved recognition with consumers.¹⁵³ However, increasing preference for local products can be difficult because consumers are driven by price and quality, which makes it challenging for local farmers to be compensated fairly while competing with imported product prices.¹⁴⁵ Despite this, Ontario's Local Food Act has contributed to the promotion of local foods and the agricultural sector to consumers throughout the province.¹⁵³ Other ways to inform consumers and create more demand is through the use and promotion of local foods by government-funded institutions in their menu offerings (refer to section 1.3 for further information) and the food industry in restaurants and culinary tourism.¹⁵⁴

In addition, maintaining identifiable standards, such as in processing, food safety and environmental, can help to ensure that Ontario-produced food is recognized as high quality, which can increase demand in all markets.¹⁵⁵ Other producers and processors have found that changing their products and defining a niche has been a successful way to increase demand for their products.¹⁴⁶ However, despite the increasing interest in local and direct marketing niches,¹⁵⁶ it is clear that this strategy must be accompanied by greater regional investment in infrastructure, such as food hubs, for improved accessibility.^{66, 145}



Increasing preference for local products can be difficult because consumers are driven by price and quality, which makes it challenging for local farmers to be compensated fairly while competing with imported product prices.



ACTION AREA 3.7

IMPROVED REGULATIONS, COMPLIANCE & OPPORTUNITIES FOR INNOVATION TO ENSURE A SAFE, ENVIRONMENTALLY SOUND, HEALTHY, ROBUST & GROWING FOOD AND FARMING SECTOR

Regulations and compliance ensure the health and safety of food produced and processed in Ontario. Maintaining food safety standards allows Ontario products to be known locally and internationally as reputable safe food. Consumer trust in Ontario's food systems can be strengthened and maintained through education and promotion of its food safety requirements. The consolidation of the food processing sector in the province over the past couple of decades has equated to a loss of local small-scale processing facilities, which have been replaced with fewer processing facilities that are larger in size. Depending on farm size and location, these larger facilities can be challenging for farmers to physically access and make it difficult to provide enough products on a consistent and year-round basis.¹⁵⁷ Small and medium-sized enterprises are beginning to refill this role; however, the investment in equipment and required knowledge and skills to navigate regulatory laws and maintain records

can be a large barrier to increasing this infrastructure.^{145, 157} In addition, major processors and retailers have their own food safety requirements, which results in a system that is even more challenging for small and medium enterprises to enter and thrive in.¹⁴⁵

Furthermore, certain regulations may reduce innovation within Ontario's food systems and the potential positive outcomes that could result in a more robust and growing food sector. Suggestions to support innovation include investment in environmentally sustainable initiatives; research; communication among producers, suppliers and retailers; and increased government support.^{158, 159} Opportunities need to be created that allow food to adhere to safety standards, and small and medium enterprises to grow. An important first step for small-scale producers and processors would involve shifting from a culture of enforcement and compliance to one of communication and collaboration.

3.7 SUGGESTED ACTIONS

- Work with large- and small-scale food businesses/producers to identify challenges presented by regulations and their enforcement, and develop innovative solutions that continue to protect the public interest.
- Improve education and awareness of regulations and compliance requirements for food providers.
- Develop regulations and policies to encourage innovation and success by all-scale producers and distributors, and explore alternative food distribution methods.
- Support innovations in genetics, production and processing practices to improve the food and farming sector.

ACTION AREA 3.8

INCREASED INNOVATIVE FINANCING FOR THE FOOD & FARMING SECTOR

More workers, including farmers, producers and food processor specialists, are needed throughout the local food and farming sector to sustain and expand the infrastructure required for Ontario's food systems. For many of those entering the business, as well as for those expanding their operations, the resources needed to start, maintain and expand an enterprise are not accessible; thus there is a need for innovative models of financing.^{157, 160} In several Ontario communities where local food initiatives are being implemented, a lack of sustainable funding to initiate and sustain enterprises has been found to be a common barrier.⁶⁶ In addition, while environmentally sustainable practices are recommended, it can be costly to make changes in present models, especially when overall economic viability is already a concern. Financial assistance could assist in transitions to environmentally sustainable practices and efficient processes.¹³⁰

For many of those entering the business, as well as for those expanding their operations, the resources needed to start, maintain and expand an enterprise are not accessible.

3.8 SUGGESTED ACTIONS

- Work with farmers, food providers, food businesses and financial institutions to develop new financing approaches for food businesses, as well as beginner and re-strategizing farmers.



ACTION AREA 3.9

IMPROVED INFRASTRUCTURE & RESOURCES TO SUPPORT THE CONTINUED GROWTH OF THE FOOD & FARMING SECTOR

Ontario's present infrastructure, including transportation, power supplies and facilities, can limit growth of the local food and farming sectors, as well as impede future development.⁶⁶ Small and medium-sized enterprises can have difficulty getting their products to market within the present distribution system due to infrastructure and retail operations that favour large enterprises.^{66, 145} In addition, the number of processing facilities and abattoirs throughout Ontario varies and can greatly inhibit farmers' abilities to process their products when they are ready.⁶⁶ For example, in eastern Ontario, access to processing facilities does not match the quantity of foods produced, while in northern Ontario extensive transportation infrastructure is needed to ensure that food can be distributed throughout the region.⁶⁶ Unique regional infrastructure needs should be considered to promote the growth of their local food and farming sectors. A number of funding opportunities exist to support the continued growth of the food and farming sector; the Greenbelt

fund¹⁶¹ and the Ontario Ministry of Agriculture, Food and Rural Affairs' Growing Forward 2¹⁶² are examples of current funding bodies.

The lack of physical infrastructure is further compounded by the cost of resources required for food systems to function. Many enterprises rely on electricity for energy because other energy sources are inaccessible. The increasing cost of electricity creates large financial challenges for those presently operating in the system,¹⁶³ and reduces Ontario's market competitiveness; these costs can provide a disincentive for development and expansion of Ontario's food and farming sector, and investment in needed processing infrastructure in the province. Improved natural gas infrastructure throughout rural Ontario is one way to reduce high costs experienced by many in the food and farming industry.¹⁶⁴

3.9 SUGGESTED ACTIONS

- Ensure that resources used as farm and food production input supplies are readily available at competitive prices (e.g., energy, water).
- Ensure that leading-edge communications technology is available across Ontario.



ACTION AREA 3.10

REDUCED WASTE THROUGHOUT ONTARIO'S FOOD SYSTEMS

In Canada, 40 per cent of food is wasted from the time it is in the field to when consumers dispose of it at home.¹⁶⁵ In the supply chain, this waste is derived from a number of different sources, such as overproduction, defects and excessive transportation.¹⁶⁵ Gleaning, the act of collecting leftover crops from the fields, is a method that has been used by some voluntary organizations to reduce food waste. However, half of total food system waste occurs in the household, the majority of which is avoidable.^{165, 166} Improving consumer waste knowledge through food literacy programs and campaigns is one potential way to reduce the amount of household food waste,¹³⁰ but this education must also be accompanied by changes to retail packaging, marketing choices and municipal waste collection systems design.¹⁶⁶ Furthermore, repurposing waste and food system by-products, such as crop or food processing residues, is a viable option for minimizing waste in the supply chain and providing renewable resources.¹⁶⁷

Each item of wasted food also wastes soil nutrients, water and energy from production inputs, transportation and processing required to produce that food. In addition, many greenhouse gases are emitted through the transportation of food, depending on the distance it travels, the mode of transportation and the efficiency of equipment used to transport it. Production practices, such as fertilizer and pesticide use, or some animal rearing practices, can have an even larger impact on the amount of emissions the food system creates.¹⁶⁸ Changing some of these practices could help reduce greenhouse gas emissions, including increasing efficiencies in transportation, reducing the amount of fertilizer and pesticide use in production, and distributing vegetables and fruit local to their production.¹⁶⁸ Simple changes throughout Ontario's food systems could reduce food waste and greenhouse gas emissions. These changes could help to make the province's food systems more environmentally and economically sustainable, and strengthen competitiveness in the demand for products with lower environmental impacts.

3.10 SUGGESTED ACTIONS

- Provide education and incentives to reduce waste in food growing, processing, distribution, retail and food service.
- Implement infrastructure that facilitates the efficient storage and transportation of perishable goods.
- Ensure that consumers are knowledgeable on food handling and preservation methods.
- Provide education, incentives and enabling policies for composting and by-product repurposing.
- Provide expanded support for food reclamation efforts.

ACTION AREA 3.11

INCREASED USE OF RESILIENT PRACTICES TO PROTECT & CONSERVE LAND, SOIL, WATER AND BIODIVERSITY FROM ENVIRONMENTAL DEGRADATION

Increasing the amount of healthy food produced in Ontario is one part of improving the health and well-being of producers, food system workers and consumers. In addition, it is vital to take into account how current agricultural and food system practices affect the environment, and the overall long-term sustainability of food systems. The government of Canada's report cards on agri-environmental performance indicators monitor agricultural practices and their outcomes throughout the country. Since 1981, Ontario has increased production on fewer acres due to losses of arable land, and seen a decrease in soil organic matter related to high rates of erosion; however, in the same time period no-tillage and conservation tillage increased and overall greenhouse gas emissions decreased.¹³⁵ Environmental Farm Plans, Nutrient Management Plans, Ontario's Source Water Protection Program, and the Water Adaption Management and Quality Initiative are a few initiatives operating in Ontario that aim to assist the agricultural sector in improving environmental outcomes. Growing Forward 2 provides funding to support several projects, including those prioritizing the environment and climate change adaptation.¹⁶⁹ Continued monitoring is recommended to mitigate the risk of further environmental degradation and to implement change for the health of the land, soil, water and biodiversity for future generations.¹³⁰

3.11 SUGGESTED ACTIONS

- Encourage production practices that enhance soil organic matter and health, increase the use of renewable resources and enhance agri-ecological diversity (i.e., support biodiversity enhancements).
- Engage in and support research on resilient practices.

ACTION AREA 3.12

INCREASED SUSTAINABILITY & SAFETY OF FISHERIES

Ontario has one-fifth of the world's fresh water sources spread over 250,000 lakes.¹⁷⁰ For many reasons, it is essential to protect waterways from contamination and pollution. Upsetting the natural balances of waterway ecosystems, such as through pollution or overfishing, can disrupt fish stocks and ecosystem health, and impact the long-term health of the waterway.¹⁷¹ This in turn can affect the health of those who consume the fish as well as the health and economic livelihood of fishers and fishing communities.¹⁷¹ Policies, planning and eco certifications are potential options for improving practices and promoting the health of waterways and fish stocks to ensure the long-term environmental, social and economic sustainability of fish and fisheries in Ontario. These initiatives have been proposed in Ontario's Provincial Fish Strategy- Fish for the Future.^{172, 173} Conservation authorities are examples of organizations helping to implement the strategy and improve waterway health.^{173, 174}

3.12 SUGGESTED ACTIONS

- Ensure a sustainable supply of fish through fisheries conservation measures and replenishment initiatives.
- Protect waterways to ensure sustainable and safe fisheries.
- Conduct research to ensure sustainable aquaculture and fisheries.

ACTION AREA 3.13

IMPROVED MANAGEMENT OF FOREST & FRESHWATER FOOD SYSTEMS TO PROVIDE A SUSTAINABLE SOURCE OF FOOD

Forest and freshwater food systems are home to a wide range of animals and diverse organisms that rely on each other within an ecosystem and provide countless ecological benefits.¹⁷⁵ Many communities, especially northern, and First Nations, Inuit and Métis communities, rely on forest and freshwater food systems to sustain themselves. Forest and freshwater food systems can face threats of development and pollution, frequently from industry-related activities.¹⁷⁵⁻¹⁷⁷ Environmental degradation not only impacts habitats, fish, wildlife and biodiversity, but also risks the health of the food supply and economic livelihoods of the communities that rely on them.^{175, 177} Engagement with communities to plan and manage freshwater and forest food systems will help to ensure the continued health and sustainability of both ecosystem and community. The Nishnawbe Aski Nation Food Strategy and the Thunder Bay and Area Food Strategy are examples of initiatives that prioritize the management and use of forest and freshwater food systems.^{53, 67}

Environmental degradation not only impacts habitats, fish, wildlife and biodiversity, but also risks the health of the food supply and economic livelihoods of the communities that rely on them.

3.13 SUGGESTED ACTIONS

- Protect existing wild lands from development and degradation for the purpose of enabling wild food procurement.





ACTION AREA 3.14

INCREASED RECOGNITION OF & REWARDS FOR ECOSYSTEM GOODS AND SERVICES PROVIDED BY THE FOOD CHAIN

Ecological goods and services are the beneficial outcomes resulting from a healthy ecosystem, such as clean water and air quality.¹⁷⁸ These goods and services are impacted by human activities, ranging from industrial factors to day-to-day activities, such as water use and transportation. Changes can be made to current food systems practices to improve environmental sustainability and ecological goods and services, thereby enhancing economic and social resilience. Overall, farming has a significant impact on soil and water quality, as well as air quality and surrounding wildlife.¹⁷⁸ Financial support and a strong commitment to environmental practices have shown to be successful factors in creating change and shifting practices in several European countries.¹⁷⁹ Continued use and enhancement of Environmental Farm Plans, as well as other initiatives aimed at building resilience, such as Alternative Land Use Services, can improve ecological goods and services. The provision of recognizable standards and rewards for those who are contributing to ecosystem goods can help aid in this conversion to long-term sustainable practices.

3.14 SUGGESTED ACTIONS

- Develop quantification techniques to accurately value ecological services from farmland and ecological farming activities.
- Develop tracking mechanisms and third party certification of the value of ecological services.

CONCLUSION

The need for a comprehensive, multipronged food and nutrition strategy is clear. Policies and programs are essential for improving the economic viability and environmental sustainability of Ontario's food systems, and addressing issues related to equitable access to healthy food and high rates of obesity and chronic disease. The 25 recommended action areas called for in the Ontario Food and Nutrition Strategy aim to support and strengthen equitable access to healthy food, improve food literacy and skills, and nurture healthy food systems that encourage economic, environmental and social sustainability. While there is evidence of work already being implemented throughout the agriculture, food and nutrition sectors, there is still much more to be done. A cross-government, multi-stakeholder coordinated approach to food policy and program development is required to strengthen these efforts across the province and support the Ontario Food and Nutrition Strategy in achieving productive, equitable and sustainable food systems that foster the wholistic health and well-being of all people in Ontario.

Policies and programs are essential for improving the economic viability and environmental sustainability of Ontario's food systems, and addressing issues related to equitable access to healthy food and high rates of obesity and chronic disease.

3.14 SUGGESTED ACTIONS CONTINUED

- Provide support to farmers so they can contribute to endangered species preservation and biodiversity enhancement.
- Engage the farm community in becoming effective managers of restoration sites important for environmental wellness.
- Encourage and champion programs that take a multi-functionality approach to delivering ecosystem goods and services.
- Take a whole-farm approach to evaluating ecological services.
- Provide incentives for producers and processors to use environmentally sustainable practices.



GLOSSARY

Definitions agreed upon by the Ontario Food and Nutrition Strategy Group can be found in this glossary.

ENVIRONMENTALLY RESPONSIBLE

Addressing environmental implications and minimizing practices that may adversely affect the environmental, economic, health or social well-being of future generations.

Source: Piotr Mazurkiewicz. *Corporate Environmental Responsibility*. 2004. World Bank. Available from http://www-wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2008/01/22/000020953_20080122134142/Rendered/PDF/421830csrframework01PUBLIC1.pdf.

EQUITABLE

Actions that result in human well-being and access to opportunity for all people.

Source: The Danish 92 Group. *Building an Equitable Green Economy: Forum for Sustainable Development*. 2012. Available from: <https://sustainabledevelopment.un.org/index.php?page=view&type=400&nr=660&menu=1515>.

FOOD ACCESS

Having sufficient economic, physical and relational resources to obtain appropriate food for a nutritious diet.

Adapted from: World Health Organization. *Glossary*. 2016. Available from: <http://www.who.int/trade/glossary/story028/en/>.

FOOD AVAILABILITY

The availability of sufficient quantities of food of appropriate quality.

Adapted from: FAO Agricultural and Development Economics Division. *World Food Summit*. 1996. Available from: <http://www.fao.org/forestry/13128-0e6f36f27e0091055bec28ebe830f46b3.pdf>.

FOOD DESERT

Predominantly low-income areas where nutritious foods are not readily available.

Source: Rideout K, Mah CL, Minaker L. *Food environments: an introduction for public health practice*. National Collaborating Centre for Environmental Health, 2015.

FOOD HUB

A business or organization that actively manages the aggregation, distribution and marketing of source-identified food products, primarily from local and regional producers, to strengthen their ability to satisfy wholesale, retail and institutional demand.

Source: Barham, J., D. Tropp, K. Enterline, J. Farbman, J. Fisk, and S. Kiraly. 2012. "Regional Food Hub Resource Guide." U.S. Dept. of Agriculture, Agricultural Marketing Service. Washington, DC.

FOOD LITERACY

A set of skills and attributes that helps people sustain the daily preparation of healthy, tasty, affordable meals for themselves and their families. Food literacy builds resilience because it includes food skills (techniques, knowledge and planning ability), the confidence to improvise and problem-solve, and the ability to access and share information. Food literacy is made possible through external support with healthy food access and living conditions, broad learning opportunities and positive socio-cultural environments.

Source: Desjardins E et al. *Locally Driven Collaborative Project*. 2013. Available from: http://foodsecurecanada.org/sites/default/files/report_ldcp_foodskills_dec2013.final5_.pdf.

FOOD SKILLS

Necessary to provide regular, healthy meals for yourself and others, comprising a combination of techniques (ability to use cooking implements and appliances, handle food ingredients), knowledge (nutrition for good health, interpreting food labels, following/understanding instructions, ingredients and recipes; food safety; awareness of food origins and characteristics; and growing foods, if possible) and planning ability (organizing meals, and food budgeting, shopping and storage).

Source: Ontario Ministry of Health Promotion. *Healthy eating, physical activity and healthy weights guidance document*. 2010. Toronto, ON: Queen's Printer for Ontario. Available from http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/mhp/HealthyEating-PhysicalActivity-HealthyWeights.pdf.

FOOD SWAMP

Low-income areas where there is disproportionately high access to convenience stores, fast food outlets, and other sources of unhealthy foods. Food swamps are more common in Canada than food deserts.

Source: Rideout K, Mah CL, Minaker L. *Food environments: an introduction for public health practice*. National Collaborating Centre for Environmental Health, 2015.

FOOD RECLAMATION

The practice of safely retrieving edible food that would otherwise go to waste and redistributing it. Food reclamation is also called food rescue and food recovery.

Source: Wikipedia. *Food rescue*. 2013 June. Available from: http://en.wikipedia.org/wiki/Food_rescue.

FOOD SECURITY

Exists when all people at all times have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Source: *FAO Agricultural and Development Economics Division. World Food Summit, 1996: Rome declaration on world food security. 1996. Available from: <http://www.fao.org/forestry/13128-0e6f36f27e0091055bec28ebe830f46b3.pdf>.*

FOOD SECURITY (COMMUNITY)

Exists when all community residents obtain a safe, personally acceptable, nutritious diet through a sustainable food system that maximizes healthy choices, community self-reliance and equal access for everyone.

Source: *Adapted from Hamm MW, Bellows AC. Community food security and nutrition educators. J Nutr Educ Behav. 2003; 35:37-43. Cited in Dietitians of Canada Community Food Security Position Paper. 2007. Available from <http://www.dietitians.ca/Downloadable-Content/Public/cfs-position-paper.aspx>.*

FOOD INSECURITY

The inability to acquire or consume an adequate amount of food or food of an adequate quality in socially acceptable ways, or the uncertainty of being able to do so.

Source: *Davis B, Tarasuk V. Hunger in Canada. Agr Hum Val. 1994; 11(4):50-57.*

FOOD SYSTEMS

All processes involved in growing, harvesting, processing (or transforming or changing), packaging, transporting, marketing, consuming and disposing of food and food packaging. A food system operates within and is influenced by social, political, economic and natural environments.

Source: *Slater J. Community food security: position of Dietitians of Canada. 2007. Toronto: Dietitians of Canada.*

GLEANING

The collection of crops either from farmers' fields that have already been mechanically harvested or from fields where it is not economically profitable to harvest due to low market prices.

Source: *Slow Movement. Gleaning and food recovery as tools to reconnect at the local level. 2016. Available from: <http://www.slowmovement.com/gleaning.php>.*

HEALTHY FOOD

Foods that contribute to healthy diets if consumed in appropriate amounts.

Source: *World Health Organization. Report of the commission on ending childhood obesity. 2016. Available from: <http://www.who.int/end-childhood-obesity/publications/echo-report/en/>.*

HEALTHY EATING OR HEALTHY DIET OR HEALTHY EATING PATTERN

For adults a healthy diet contains:

- Fruit, vegetables, legumes (e.g., lentils, beans), nuts and whole grains (e.g., unprocessed maize, millet, oats, wheat, brown rice).
- At least 400 grams (five portions) of fruit and vegetables a day. Potatoes, sweet potatoes, cassava and other starchy roots are not classified as fruit or vegetables.
- Less than 10 per cent of total energy intake from free sugars, which is equivalent to 50 grams (or around 12 level teaspoons) for a person of healthy body weight consuming approximately 2,000 calories per day, but ideally less than five per cent of total energy intake for additional health benefits. Most free sugars are added to foods or drinks by the manufacturer, cook or consumer, and can be found in sugars naturally present in honey, syrups, fruit juices and fruit juice concentrates.
- Less than 30 per cent of total energy intake from fats. Unsaturated fats (e.g., found in fish, avocado, nuts, sunflower, canola and olive oils) are preferable to saturated fats (e.g., found in fatty meat, butter, palm and coconut oil, cream, cheese, ghee and lard). Industrial trans fats (found in processed food, fast food, snack food, fried food, frozen pizza, pies, cookies, margarines and spreads) are not part of a healthy diet.
- Less than five grams of iodized salt (equivalent to approximately one teaspoon) per day.

Source: *World Health Organization. Healthy diet fact sheet. 2015. Available from: <http://www.who.int/mediacentre/factsheets/fs394/en/>.*

HEALTHY OR SUSTAINABLE FOOD SYSTEM

Food produced, harvested, processed, distributed, consumed and disposed in a manner that maintains and enhances the quality of land, air and water for future generations, and that allows people to earn a living wage in a safe and healthy working environment by harvesting, growing, producing, processing, handling, retailing and serving food.

Adapted from: *Food Secure Canada. Local food self-resilience working paper. 2007. Available from: http://foodsecurecanada.org/sites/default/files/local_food_self_reliance.pdf.*

LOCAL FOOD ACT

A 2013 Act that promotes the Ontario food system by fostering successful and resilient local food economics and systems throughout Ontario, increasing awareness of local, diverse food in Ontario and encouraging the development of new markets for local food.

Source: *Legislative Assembly of Ontario (2013). Bill 36, Local Food Act, 2013. Available from: http://www.ontla.on.ca/web/bills/bills_detail.do?locale=en&Intranet=&BillID=2754.*

LOCAL FOOD (AS DEFINED BY THE LOCAL FOOD ACT)

(a) Food produced or harvested in Ontario, including forest or freshwater food, and (b) subject to any limitations in the regulations, food and beverages made in Ontario if they include ingredients produced or harvested in Ontario.

Source: Legislative Assembly of Ontario (2013). *Bill 36, Local Food Act, 2013*. Available from: http://www.ontla.on.ca/web/bills/bills_detail.do?locale=en&Intranet=&BillID=2754.

LOCAL FOOD

Food that has been grown or caught, processed and distributed as close to the point of consumption as possible, including the community, municipality, bio-region, province or country where the food is consumed.

Source: Adapted from *Local Food Plus*. www.localfoodplus.ca.

LOCAL FOOD SYSTEM

A chain of activities and processes related to the locally organized production, processing, distribution, consumption and disposal of food in an effort to build more locally based, self-reliant food economies to enhance economic, environmental and social health.

Adapted from: Feenstra, G. *Creating space for sustainable food systems: lessons from the field*. *Agr Human Val.* 2002;19(2): 99-106; Feenstra G, Campbell D. *Steps for developing a sustainable community food System, Pacific Northwest Sustainable Agriculture: Farming for Profit & Stewardship*. Winter 1996-97; 8(4):1-6. <http://www.farmingthecity.net>.

MULTI-FUNCTIONALITY

Emphasizes that in addition to producing food and fibre, agriculture also produces a wide range of non-commodity goods and services, shapes the environment, affects social and cultural systems and contributes to economic growth.

Source: Van Huylenbroeck G, Vandermeulen V, Mettepenningen E, Verspecht A. *Multifunctionality of agriculture: a review of definitions, evidence and instruments*. *Living Rev. Landscape Res.* 2007;1(3): 5-42.

NUTRITIOUS

Providing nourishment, especially to a high degree. Also sometimes called nourishing or healthful.

Source: *nutritious*. *Dictionary.com*. *Dictionary.com Unabridged*. Random House, Inc. Available from: <http://dictionary.reference.com/browse/nutritious>.

RESILIENT

The ability of a system (person, community, ecosystem) to absorb shock, stresses and changes while maintaining its essential function.

Source: Tay S, Penner J. *Community Food Resiliency: Envisioning Our Food System in 2040*. 2012. Retrieved November 8, 2012 from: <http://www.museumofvancouver.ca/programs/blog/2012/04/10/community-food-resiliency-envisioning-our-food-system-2040>.

SUSTAINABLE

Does not compromise the environmental, economic, health or social well-being of present and future generations.

Adapted from: American Dietetic Association Sustainable Food System Task Force. *Healthy Land, Healthy People: building a better understanding of sustainable food systems for food and nutrition professionals: a primer on sustainable food systems and emerging roles for food and nutrition professionals*. Chicago, IL: American Dietetic Association.

UNIVERSAL STUDENT NUTRITION PROGRAM

A program that offers a healthy breakfast, morning meal, snack and/or lunch to all students in Ontario before, during or after each school day, regardless of their ability to pay.

Source: Sustain Ontario. *What is meant by Universal Student Nutrition Program?* 2014. Available from: http://sustainontario.com/work/edible-education/wp-content/uploads/sites/5/2014/08/UniversalSNP_SayYes.pdf.

VULNERABLE POPULATIONS

Groups of people "made vulnerable by their financial circumstances or place of residence; health, age, or functional or developmental status; or ability to communicate effectively... [and] personal characteristics, such as race, ethnicity, and sex," including, but not limited to, Ontario's First Nations, Métis and Inuit populations.

Source: *Final Report of the President's Advisory Commission on Consumer Protection and Quality in the Healthcare Industry*. 2010. *IOM Health Literacy Roundtable*, Washington, DC. Available from: <http://iom.edu/~media/Files/Activity%20Files/PublicHealth/HealthLiteracy/2010-NOV-10/Bettigole.pdf>.

WHOLISTIC HEALTH

Addresses the physical, mental, emotional, spiritual, cultural and social well-being of individuals and the whole community.

Source: Ontario Federation of Indigenous Friendship Centres. "Good Mind" Ontario Federation of Indigenous Friendship Centres Mental Health Strategy. 2006. Available from: <http://ofifc.org/sites/default/files/docs/Good%20Mind%20--%20OFIFC%20Mental%20Health%20Strategy.pdf>.



APPENDIX A

ONTARIO FOOD & NUTRITION
STRATEGY STAKEHOLDERS &
ACHIEVEMENTS TO DATE

ONTARIO FOOD & NUTRITION STRATEGY GROUP

Co-Leads

Lynn Roblin, Ontario Public Health Association, Dietitians of Canada

Rebecca Truscott, Cancer Care Ontario

Ravenna Nuaimy Barker, Sustain Ontario (2011-2014)

Organizations Represented

Canadian Cancer Society

Canadian Diabetes Association

Canadian Environmental Law Association

Cancer Care Ontario

Chiefs of Ontario

Dietitians of Canada

Health Canada, First Nations and Inuit Health Branch, Ontario Region

Heart and Stroke Foundation

Nishnawbe Aski Nation

Ontario Collaborative Group on Healthy Eating and Physical Activity

Ontario Federation of Agriculture

Ontario First Nations Integrated Health Strategy Working Group

Ontario Home Economics Association

Ontario Medical Association

Ontario Public Health Association

Ontario Society of Nutrition Professionals in Public Health

Organic Council of Ontario

Public Health Ontario

Ryerson University

Sustain Ontario

Toronto Food Policy Council

University of Guelph

University of Toronto

University of Waterloo

Wilfrid Laurier University

York University

ORGANIZATIONS INVOLVED IN ENGAGEMENT MEETINGS & DISCUSSIONS

Association of Iroquois and Allied Indians

Breakfast for Learning

Canadian Agri-Food Policy Institute

Canadian Cancer Society

Canadian Diabetes Association

Canadian Environmental Law Association

Canadian Mental Health Association

Canadian Partnership Against Cancer

Cancer Care Ontario

Centre for Addiction and Mental Health/
Ontario Tobacco Research Unit

Chief Medical Officer of Health's Office

Chiefs of Ontario

Christian Farmers Federation
of Ontario

Dietitians of Canada

Ecological Farmers of Ontario

Farm Start

Food and Consumer Products of Canada

Grand Council Treaty #3

Greenbelt Foundation

Hamilton Public Health Services

HC Link

Health Canada, First Nations and Inuit
Health Branch, Ontario Region

Heart and Stroke Foundation

National Farmers Union

Nishnawbe Aski Nation

Nutrition Resource Centre –
Ontario Public Health Association

Ontario Association of Food Banks

Ontario Chronic Disease Prevention
Management in Public Health

Ontario Collaborative Group on
Healthy Eating and Physical Activity

Ontario Federation of Agriculture

Ontario Federation of Indigenous
Friendship Centres

Ontario First Nations Integrated
Health Strategy Working Group

Ontario Home Economics Association

Ontario Ministry of Agriculture,
Food and Rural Affairs

Ontario Ministry of Children
and Youth Services

Ontario Ministry of Education

Ontario Ministry of Health and
Long-Term Care

Ontario Native Women's Association

Ontario Physical and Health
Education Association

Ontario Professional Planners Institute

Ontario Public Health Association -
Food Security Network

Ontario Society of Nutrition
Professionals in Public Health

Ontario Tobacco Research Unit

Organic Council of Ontario

Public Health Agency of Canada

Public Health Ontario

Ryerson University

Social Planning Network of Ontario

Sudbury District Health Unit

Sustain Ontario

Toronto Food Policy Council

Union of Ontario Indians

University of Guelph

University of Ontario Institute
of Technology

University of Toronto

University of Waterloo

Vineland Research and
Innovation Centre

Wilfrid Laurier University

York University

ACHIEVEMENTS TO DATE

For detailed documentation of the Ontario Food and Nutrition Strategy Group's accomplishments to date, refer to <http://sustainontario.com/work/ofns>.

2009:

- Ontario Collaborative Group on Healthy Eating and Physical Activity identified need for a comprehensive food and nutrition strategy

2010

- Released two foundational reports exploring Ontario's capacity for a provincial food and nutrition strategy

2011

- Consulted with relevant ministries, food, health and farming groups
- Ontario Food and Nutrition Strategy Group was established

2012

- Released draft strategy framework and hosted an online open consultation [233 individuals and groups participated to produce 126 submissions]
- Stakeholder forum held to review consultation results and reach consensus

2013

- Draft strategy was revised and released to stakeholders and a second online open consultation was held to garner further feedback [78 submissions received]
- Revisions made to strategy as a result of online consultation
- Inter-ministerial meeting was held in collaboration with the Ontario Ministry of Agriculture, Food and Rural Affairs
- First Nations communities, Inuit, and Métis organizations were engaged to provide feedback on the OFNS

2014

- Third online open consultation conducted [33 submissions]
- OFNS Action Plan Framework was finalized and released to stakeholders and posted on the Sustain Ontario website

2015

- Developed evidence summary to accompany OFNS Action Plan Framework
- Pursued funding opportunities to advance the OFNS. Awarded Collective Impact Coaching grant from Innoweave to develop a theory of change and governance model.

2016

- Awarded grant from Public Health Agency of Canada to identify system-level indicators for food access and food literacy

2017

- Launched the Ontario Food and Nutrition Strategy



APPENDIX B

ONTARIO FOOD & NUTRITION
STRATEGY ACTION PLAN
FRAMEWORK

STRATEGIC DIRECTION 1:

HEALTHY FOOD ACCESS

People in Ontario have access to and the means to choose and obtain safe, healthy, local and culturally acceptable food.

ACTION AREAS	SUGGESTED ACTIONS
<p>1.1 Increased individual and household food security</p>	<p>1.1.1 Address the root cause of food insecurity by supporting policies to improve individual and household income and enable low income residents to afford healthy food (e.g., basic income guarantee, adequate minimum wage and social service allotment, affordable housing, affordable childcare, seniors care, public transportation, education and training, and employment).</p> <p>1.1.2 When setting the rates for social assistance, minimum wage and the Special Diet Allowance, ensure that nutritious food is accessible to all people in Ontario by using the cost of the Nutritious Food Basket and other locally appropriate costing exercises, in addition to the cost of housing (reported by the Canada Mortgage and Housing Corporation).</p>
<p>1.2 Increased access to safe, healthy, local and culturally acceptable food in communities, especially for vulnerable populations</p>	<p>1.2.1 Increase the availability of equitably-priced, safe, healthy, local and culturally appropriate food in childcare, preschools, schools, colleges, universities, long-term care facilities, hospitals, recreation centres, workplaces and other public facilities.</p> <p>1.2.2 Establish a universal student nutrition program in all Ontario public schools and in all First Nations communities.</p> <p>1.2.3 Support and ensure accountability of programs that increase physical and economic accessibility of healthy, safe, culturally appropriate food to rural and remote regions of Ontario.</p> <p>1.2.4 Support community food access and production solutions that promote the availability and affordability of fresh, locally or regionally grown food, and create opportunities to implement and expand these initiatives (e.g., fresh vegetable and fruit boxes, preparation of traditional food, farmer’s markets, community food hubs, multicultural community gardens).</p> <p>1.2.5 Support community-based social enterprises that increase access to healthy, safe, affordable and culturally appropriate food.</p> <p>1.2.6 Ensure that food safety, quality and sustainability systems are in place and clearly documented, and that food quality is promoted.</p> <p>1.2.7 Conduct research that looks into the effect of subsidizing nutritious ingredients, beverages and food.</p>



ACTION AREAS	SUGGESTED ACTIONS
<p>1.3 Increased use of healthy and local food by public sector organizations</p>	<p>1.3.1 Develop healthy, local and sustainable food procurement targets for public sector institutions (e.g., childcare, schools, colleges, universities, hospitals, long-term care, day care and other public sector food services).</p> <p>1.3.2 Provide incentives and training to enable public sector institutions to meet the healthy, local and sustainable procurement targets.</p>
<p>1.4 Increased distribution and promotion of equitably-priced, healthy and local food</p>	<p>1.4.1 Enact policies that ensure that the cost of food is equitable in all communities in Ontario.</p> <p>1.4.2 Provide infrastructure that ensures the efficient storage, transportation and distribution of food to all areas of Ontario.</p> <p>1.4.3 Support farmers and processors in delivering healthy, local and sustainable food in demand at equitable prices.</p> <p>1.4.4 Market and promote healthy, local and sustainable food with existing and new partners and communities.</p> <p>1.4.5 Identify healthy, local food clearly to consumers through labels and signage.</p>
<p>1.5 Reduced access to high calorie, low-nutrient food, beverages and snacks</p>	<p>1.5.1 Implement harmonized policies across public facilities to reduce the availability of high-calorie, low-nutrient food, beverages and snacks (e.g., childcare, preschool, elementary and high schools).</p> <p>1.5.2 Conduct research that measures the effect of taxing non-nutritious ingredients, food, beverages and snacks.</p>
<p>1.6 Enhanced food access through municipal, regional and community land use management and planning</p>	<p>1.6.1 Engage with municipal, regional and community planning departments and committees in planning for food access.</p> <p>1.6.2 Support the development and implementation of community-based land use management plans and policies for food access, in addition to production.</p> <p>1.6.3 Conduct a policy review of Ontario regulations to identify contradictory regulations and encourage community planning, zoning and funding that supports healthier food choices, develops and promotes the local food sector, and reduces access to unhealthy food choices (e.g., food deserts, food swamps).</p> <p>1.6.4 Support the development and implementation of municipal, regional and community food councils that can advise on food access and policy creation.</p>

STRATEGIC DIRECTION 2:

FOOD LITERACY AND SKILLS

People in Ontario have the information, knowledge, skills, relationships, capacity and environments to support healthy eating and make healthy choices where they live, gather, work, learn and play.

ACTION AREAS	SUGGESTED ACTIONS
<p>2.1 Increased knowledge, skills and capacity for all people in Ontario to eat healthy throughout their lives</p>	<p>2.1.1 Ensure widespread promotion and support for the provision of pre- and post-natal nutrition education, breastfeeding and infant feeding programs. Address individual and community barriers to low breast feeding rates.</p> <p>2.1.2 Promote healthy eating for preschoolers and young children at home and outside of the home, such as in childcare centres, through parent and childcare provider nutrition education, food skills education and cue-based feeding training.</p> <p>2.1.3 Include evidence-based food literacy education about nutrition, food, growing, harvesting, gathering and producing food, and food skills development as a mandatory part of the curriculum at all grade levels.</p> <p>2.1.4 Provide and support economically accessible public health and community-based food literacy programs for individuals and households to develop food skills (e.g., growing, harvesting, hunting, selecting, preparing, and safety) in school and community settings (e.g., Community Food Advisor program).</p> <p>2.1.5 Support development of food skills and nutrition education resources and programs for use in preschools, schools, workplaces, and community and recreation facilities that meet each community’s needs.</p> <p>2.1.6 Provide support to increase healthy eating knowledge and food skills through an ongoing marketing and promotion campaign in collaboration with existing and new partners and communities.</p> <p>2.1.7 Provide access to free nutrition information and education about healthy eating (e.g., EatRight Ontario, local public health units, Ontario Public Health Association-Nutrition Resource Centre, Community Food Advisor program).</p>
<p>2.2 Increased access to public information about healthy eating through retailers and food service</p>	<p>2.2.1 Require food manufacturers, retailers and food services to provide consistent, clear and visible nutrition information about the food they sell (e.g., align their efforts with existing groups working on this issue) to enable consumers to make informed and healthy food choices.</p> <p>2.2.2 Implement a nutrition communications strategy and education program to increase awareness and educate the public on nutrition labelling and making healthier choices (e.g., local public health units, Nutrition Resource Centre, Community Food Advisor, EatRight Ontario, Dietitians of Canada’s eaTracker and private, voluntary initiatives).</p>



ACTION AREAS	SUGGESTED ACTIONS
2.3 Restricted advertisement of unhealthy food, beverages and snacks to children (under 12)	2.3.1 Ban commercial advertising of food, beverages and snacks targeted at children and youth under 12 years of age (at a minimum). 2.3.2 Continue research that clarifies the links between food advertising to children and children's food habits.
2.4 Increased availability of professional nutrition services in health, community and work settings	2.4.1 Increase public access to nutrition counselling services by registered dietitians (e.g., public health, family health teams, community health centres, hospitals, mental health programs, other community programs, EatRight Ontario, online, phone and texting services). 2.4.2 Promote health in workplaces by providing access to professionally designed nutrition education programs and workplace nutrition policies. 2.4.3 Include nutrition counselling by registered dietitians as an insured service in workplace insurance plans.
2.5 Enhanced services to identify, refer and treat people at early risk of obesity or chronic disease	2.5.1 Provide integrated, effective and non-stigmatizing screening, referral and intervention tools for healthcare professionals across the province for the prevention, early identification, and treatment of overweight/obesity and diet-related chronic disease. 2.5.2 Ensure adequate resources for intervention for toddlers and preschoolers identified as high risk through NutriSTEP® screening across the province. 2.5.3 Develop, evaluate and implement a screening and referral protocol for children (five and over), youth and adults at various life stages. 2.5.4 Implement the NutriSTEP® screening program across the province to identify children 18-35 months and three to five years of age who are at increased risk of poor nutrition and activity or large amounts of sedentary behaviours. Expand the screening program to include local or provincial strategies for high risk children, or incorporate NutriSTEP® into existing programs and data collection (e.g., Healthy Babies Healthy Children, 18 month expanded visit, kindergarten registration) for intervention at these ages. 2.5.5 Implement the SCREEN® (Seniors in the Community Risk Evaluation for Eating and Nutrition) screening tool across the province to identify older adults at risk of nutrition-related health problems. 2.5.6 Provide sufficient resources so that all people in Ontario identified as at-risk for obesity or chronic disease have free access to multidisciplinary healthcare teams, which could include registered dietitians, certified personal trainers, exercise physiologists, social workers and mental health professionals.

STRATEGIC DIRECTION 3:

HEALTHY FOOD SYSTEMS

Ontario has diverse, healthy and resilient food systems that promote health and contribute to an equitable and prosperous economy.

ACTION AREAS	SUGGESTED ACTIONS
FOOD PRODUCTION & ECONOMIC DEVELOPMENT	
<p>3.1 Improved economic viability of food systems and sustainable livelihoods</p>	<p>3.1.1 Ensure that existing and new programs and policies support the economic viability of farms, including family farms, and support sustainable livelihoods of those working in food systems.</p> <p>3.1.2 Increase public and private investment in food innovation, research and development.</p> <p>3.1.3 Update programs with promising practices to enable farmers to mitigate the impacts of climate change.</p> <p>3.1.4 Maintain and improve programs that mitigate market risks.</p> <p>3.1.5 Develop and support regulations and reduce barriers for programs that make local and sustainable food more readily available.</p>
<p>3.2 Increased protection and use of farmland, forests, waterways and urban land for food production</p>	<p>3.2.1 Continue to adapt the Provincial Policy Statement to clearly direct the protection and preservation of viable farmland.</p> <p>3.2.2 Legislate clear and enforceable arrangements for the conservation of productive farmlands and ensure that farmland remains affordable.</p> <p>3.2.3 Support the creation of viable succession plans to support farmland, forests, waterways and urban land preservation.</p> <p>3.2.4 Develop city, regional and community land and waterway use policies for food production.</p> <p>3.2.5 Promote the use of available urban land for food production.</p> <p>3.2.6 Support innovation in the protection and use of land, waterways and forests for food acquisition and production.</p>
<p>3.3 Enhanced recruitment and skills building to expand the food systems workforce</p>	<p>3.3.1 Ensure that succession planning tools and mentoring programs are available to encourage generational farm transfers and diverse new entrants.</p> <p>3.3.2 Ensure that there is training and education available to farming and food enterprises to promote implementation of human resources best practices and training.</p> <p>3.3.3 Provide extension services, training, incentives and support to create sustainable livelihoods within food systems.</p> <p>3.3.4 Invest in education and training in food production and processing to promote careers in the food industry.</p> <p>3.3.5 Invest in education and training in traditional food, such as harvesting, hunting and gathering, to promote expansion of traditional procurement methods.</p>

ACTION AREAS	SUGGESTED ACTIONS
3.4 Increased production of healthy and safe food	3.4.1 Support farmers and processors in producing healthy and safe in-demand products. 3.4.2 Ensure that transportation, processing and distribution capacities are adequate and secure for perishable and non-perishable products.
3.5 Increased protection and support for farm and food workers, including migrant workers, to ensure health and well-being	3.5.1 Ensure proper training and equipment is provided to work safely. 3.5.2 Enforce employment and occupational health and safety standards to ensure safe working and living conditions for all workers. 3.5.3 Provide protection, support and compensation for injured workers and those in unsafe living and work conditions.
FOOD SYSTEMS EXCELLENCE & INNOVATION	
3.6 Increased demand and preference for Ontario food products in all markets	3.6.1 Maintain identifiable standards for Ontario food products, including environmental, food safety and processing standards. 3.6.2 Ensure that Ontario is recognized as a leader in environmentally sustainable food production. 3.6.3 Promote the advantages of supporting local food to consumers.
3.7 Improved regulations, compliance, and opportunities for innovation to ensure a safe, environmentally sound, healthy, robust, and growing food and farming sector	3.7.1 Work with large and small-scale food businesses/producers to identify challenges presented by regulations and their enforcement, and develop innovative solutions that continue to protect the public interest. 3.7.2 Improve education and awareness of regulations and compliance requirements for food providers. 3.7.3 Develop regulations and policies to encourage innovation and success by all-scale producers and distributors, and explore alternative food distribution methods. 3.7.4 Support innovations in genetics, production and processing practices to improve the food and farming sector.
3.8 Increased innovative financing for the food and farming sector	3.8.1 Work with farmers, food providers, food businesses and financial institutions to develop new financing approaches for food businesses, as well as beginner and re-strategizing farmers.
3.9 Improved infrastructure and resources to support the continued growth of the food and farming sector	3.9.1 Ensure that resources used as farm and food production input supplies are readily available at competitive prices (e.g., energy, water). 3.9.2 Ensure that leading-edge communications technology is available across Ontario.

ACTION AREAS	SUGGESTED ACTIONS
ENVIRONMENTAL PROTECTION	
3.10 Reduced waste throughout Ontario's food systems	3.10.1 Provide education and incentives to reduce waste in food growing, processing, distribution, retail and food service. 3.10.2 Implement infrastructure that facilitates the efficient storage and transportation of perishable goods. 3.10.3 Ensure that consumers are knowledgeable on food handling and preservation methods. 3.10.4 Provide education, incentives and enabling policies for composting and by-product repurposing. 3.10.5 Provide expanded support for food reclamation efforts.
3.11 Increased use of resilient practices to protect and conserve land, soil, water and biodiversity from environmental degradation	3.11.1 Encourage production practices that enhance soil organic matter and health, increase the use of renewable resources and enhance agri-ecological diversity (i.e., support biodiversity enhancements). 3.11.2 Engage in and support research on resilient practices.
3.12 Increased sustainability and safety of fisheries	3.12.1 Ensure a sustainable supply of fish through fisheries conservation measures and replenishment initiatives. 3.12.2 Protect waterways to ensure sustainable and safe fisheries. 3.12.3 Conduct research to ensure sustainable aquaculture and fisheries.
3.13 Improved management of forest and freshwater food systems to provide a sustainable source of food	3.13.1 Protect existing wild lands from development and degradation for the purpose of enabling wild food procurement.
3.14 Increased recognition of and rewards for ecosystem goods and services provided by the food chain	3.14.1 Develop quantification techniques to accurately value ecological services from farmland and ecological farming activities. 3.14.2 Develop tracking mechanisms and third party certification of the value of ecological services. 3.14.3 Provide support to farmers so they can contribute to endangered species preservation and biodiversity enhancement. 3.14.4 Engage the farm community in becoming effective managers of restoration sites important for environmental wellness. 3.14.5 Encourage and champion programs that take a multi-functionality approach to delivering ecosystem goods and services. 3.14.6 Take a whole-farm approach to evaluating ecological services. 3.14.7 Provide incentives for producers and processors to use environmentally sustainable practices.



APPENDIX C

KEY REQUIREMENTS FOR
AN ONTARIO FOOD &
NUTRITION STRATEGY

KEY REQUIREMENTS

1. Coordinated provincial office and advisory council to address food and nutrition policy and programming

1a. The office of food and nutrition policy and programming will plan, implement and monitor policies and programs across government ministries.

The office of food and nutrition policy will:

- Monitor cross-ministry progress on food and nutrition policy and programs
- Act under direction from the food and nutrition advisory council
- Work with local, regional and municipal stakeholders to enhance local, municipal, regional and provincial food systems linkages and to facilitate systems-level coordination
- Create opportunities for provincial ministries, local governments, provincial and local stakeholders and the people in Ontario to identify collaborative actions to create a stronger economy and a healthier province through food
- Work across government ministries to address the social and environmental factors that affect chronic disease and obesity, such as socioeconomic status, food affordability and access to nutritious food
- Incorporate Health Impact Assessments in the review process for all policies and programs
- Ensure open communication and dialogue between ministries, the food and nutrition advisory council, non-governmental partners and the public

1b. The advisory council will provide evidence-informed advice to the government on the planning, implementation and monitoring of effective, equitable food and nutrition policies and programs.

The advisory council will:

- Incorporate a wide range of stakeholders representing food systems, agriculture, health, education, industry and civil society

- Use an integrated analysis of food systems to provide food policy advice to the office of food and nutrition policy and programming
- Support community outreach and engagement initiatives that focus on food systems planning and action
- Ensure that Ontario and its regions, municipalities and counties have policies and legislation that support healthy citizens and advance equitable, economically viable and environmentally sound food systems

2. Systematic approach to measurement, monitoring and analysis of key indicators

2a. Traditional and non-traditional food and nutrition indicators will be developed, implemented and monitored, and will include health, social, economic, environmental, food and food systems indicators.

- Identify measurable and robust indicators, and fund the development of systems to measure these
- Measure the health of the population using identified core indicators at consistent time intervals
- Measure the health of freshwater, forest and agricultural food systems using core indicators at consistent time intervals
- Measure key food and nutrition indicators at consistent time intervals
- Support access to data for researchers and policymakers

2b. Regular reporting on key indicators will allow progress of the Ontario Food and Nutrition Strategy to be measured and evaluated.

- Set population health, food systems and food and nutrition targets
- Monitor indicators and their relation to targets
- Support evaluation of key indicators and targets to inform policy
- Share results on progress on key indicators



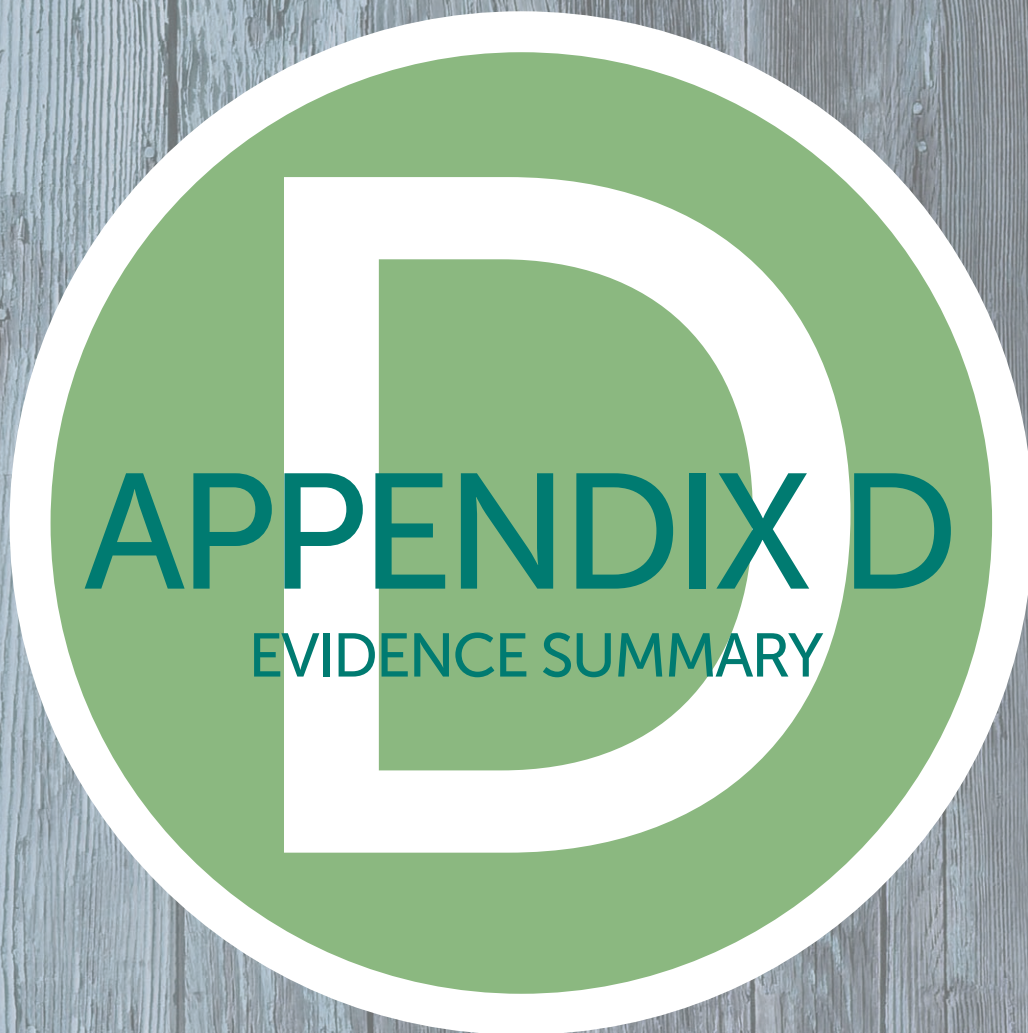
3. Sufficient capacity and resources to support all elements of the Ontario Food and Nutrition Strategy

3a. Initiatives aligned with the strategic directions of the Ontario Food and Nutrition Strategy are invested in through reallocation of funds and savings from inter-ministerial collaboration.

- Prioritize funding to align with the strategic directions of the Ontario Food and Nutrition Strategy
- Ensure that there are adequate human resources at all levels to support implementation of the Ontario Food and Nutrition Strategy (e.g., staff for coordination, registered dietitians, researchers)
- Make health promotion a provincial priority with a clear mandate and funding at no less than 0.5% of the provincial budget.
- Promote and support innovative local food projects to improve community resiliency
- Provide adequate resources to meet the needs of rural and northern communities

3b. Research, innovation and knowledge exchange is supported to advance the Ontario Food and Nutrition Strategy.

- Increase research on programs, policies, monitoring, evaluation and cost-benefit analyses on priority action areas, such as:
 - > Food security
 - > Poverty reduction
 - > Healthy food access
 - > Food literacy and skills
 - > Local food production, processing and use
 - > Agricultural subsidies and pricing
 - > Sustainable practices throughout the food systems
- Support innovation across government and at all levels to develop and/or improve food and nutrition programs and policies
- Facilitate knowledge exchange and capacity building in food systems planning and policy development (see Phase 1 document recommendations)



APPENDIX D

EVIDENCE SUMMARY

The following charts in Appendix D provide a summary of the evidence that support each of the 25 action areas in the Ontario Food and Nutrition Strategy. The references provided include those cited in the report as well as other documents containing supportive evidence. Each action area is broken into main premises in the table, with references provided to support each main premise. The type of study and/or document is identified for each reference and the key findings related to the main premise are summarized in the table.

HEALTHY FOOD ACCESS

ACTION AREA 1.1:

Increased individual & household food security

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: FOOD INSECURITY REDUCES QUALITY OF DIET AND AFFECTS HEALTH		
Hanson KL, Connor LM. Food insecurity and dietary quality in US adults and children: a systematic review. <i>Am J Clin Nutr.</i> 2014;100(2):684-92.	Peer-reviewed publication: systematic review of associations between food insecurity and diet in children and adults in the United States.	Adults experiencing food insecurity eat fewer servings of vegetables and fruit, and dairy products than those who are food secure. Food insecurity experiences in children had less of an effect.
Kirkpatrick SI, Tarasuk V. Food insecurity is associated with nutrient inadequacy. <i>J Nutr.</i> 2008;138:604-12.	Peer-reviewed publication: analysis of 2004 Canadian Community Health Survey data. Nutrient intakes for people between 1 and 70 years of age were assessed in comparison to household food security status.	Adolescents and adults in food insecure households faced higher nutrient inadequacy. Children did not experience a significant difference in nutrient intake between food insecure and food secure households.
Tarasuk V, Fitzpatrick S, Ward H. Nutrition inequities in Canada. <i>Appl Physiol Nutr Metab.</i> 2010;34:172-9.	Peer-reviewed publication: analysis of 2004 Canadian Community Health Survey data for relationships between education level and household income in relation to food intake in adults and children.	Adults with the lowest household income and education level had a higher prevalence of inadequate nutrient intake compared to other economic and educational gradients.
Fitzpatrick T, Rosella LC, Calzavara A, Petch J, Pinto AD, Manson H, et al. Looking beyond income and education: socioeconomic status gradients among future high-cost users of health care. <i>Am J Prev Med.</i> 2015;49(2):161-71.	Peer-reviewed publication: cohort study linking adults sampled from 2003 and 2005 Canadian Community Health Surveys to administrative data for a five year follow-up to estimate current and future healthcare spending in Ontario and assess factors associated with high cost healthcare users.	Future high-cost users of the healthcare system were most strongly associated with food insecurity, not owning a home and lower income.
Tarasuk V, Cheng J, de Oliveira C, Dachner N, Gunerson C, Kurdyak P. Association between household food insecurity and annual health care costs. <i>Can Med Assoc J.</i> 2015;187(14):E429-E36.	Peer-reviewed publication: analysis of food security status from 2005, 2007/08 and 2009/10 Canadian Community Health Survey and the relationship to healthcare costs. Data from 67,033 people in Ontario ages 18 to 64 was used.	Household food insecurity is a predictor of healthcare use and costs. Households with marginal food insecurity had healthcare costs 16% (\$235) higher than food secure households; those who were moderately food insecure and severely food insecure had costs 32% (\$455) and 76% (\$1,092) higher, respectively.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: FOOD INSECURITY IS A FUNCTION OF INADEQUATE INCOME IN COMPARISON TO EXPENSES		
Tarasuk V, Mitchell A, Dachner N. Household food insecurity in Canada, 2013. Toronto: Research to identify policy options to reduce food insecurity (PROOF); 2015.	Expert report: analysis of the 2013 Canadian Community Health Survey Household Food Security Survey Module to assess the state of household food insecurity in Canada and characteristics associated with it.	In 2013, 12.5% of households in Ontario experienced food insecurity. Characteristics of food insecure households in Canada include obtaining income from wage or salary employment, having income below the low income measure, having children and specifically being a female lone parent, identifying as black, identifying as Aboriginal and renting.
Vogt J, Tarasuk V. Analysis of Ontario sample in Cycle 2.2 of the Canadian Community Health Survey (2004). Toronto: Public Health Research, Education and Development (PHRED) Program; 2007.	Government report: analysis of nutrient intake, weight and food security status based on 2004 Canadian Community Health Survey data.	Food insecurity increases as income decreases.

ACTION AREA 1.2:

Increased community food security through access to safe, healthy, local & culturally acceptable food in communities, especially for vulnerable populations

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: HEALTHY FOODS NEED TO BE BOTH PHYSICALLY AND FINANCIALLY ACCESSIBLE		
Gustafson A, Hankins S, Jilcott S. Measures of the consumer food store environment: a systematic review of the evidence 2000-2011. J Community Health. 2012;37(4):897-911.	Peer-reviewed publication: systematic review of 56 articles to assess the food environment in relation to neighbourhood, price, weight and dietary patterns. The food environment encompassed retailer locations and the environment within retailers.	Many factors can affect the foods people purchase, including price, location, type of store and characteristics of the neighbourhood.
Chan L, Receveur O, Batal M, David W, Schwartz H, Ing A, et al. First Nations food, nutrition and environment study (FNFNES): Results from Ontario (2011/2012). Ottawa: University of Ottawa; 2014.	Research report: cross-sectional study of 18 First Nations communities in Ontario from 2011 to 2012 to assess the impacts of the environment and pollution on traditional food, nutrition and health.	Of the 1,429 people who participated, 93% consumed traditional food. Traditional foods are nutrient-dense, so on days when they were consumed, diet quality was superior in comparison to days when market foods were consumed. Market foods contributed to higher amounts of sodium, sugar and saturated fat in the diet. Barriers such as time, equipment and transportation limited the ability to consume traditional foods.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: COMMUNITY FOOD SECURITY APPROACHES USE SUSTAINABLE SOLUTIONS TO IMPROVE COMMUNITY HEALTH AND WELL-BEING		
Slater J. Community food security: position of Dietitians of Canada. Toronto: Dietitians of Canada; 2007.	Expert report: position statement by Dietitians of Canada on the importance of community food security.	Community food security provides a sustainable model for building food systems that prioritize the environment, economic gains and social equity as a means to eliminate food insecurity.
MAIN PREMISE: COMMUNITY FOOD ACCESS AND PRODUCTION PROGRAMS CAN HAVE NUMEROUS BENEFITS		
Iacovou M, Pattieson DC, Truby H, Palermo C. Social health and nutrition impacts of community kitchens: a systematic review. Public Health Nutr. 2013;16(3):535-43.	Peer-reviewed publication: systematic review of 10 articles to assess the impacts of community kitchens on participants around the world.	Community kitchens show promising effects on reducing social isolation and improving cooking skills. In addition, some improvements were seen in nutrition knowledge and dietary intake.
Ishdorj A, Crepinsek MK, Jensen HH. Children's consumption of fruits and vegetables: do school environment and policies affect choices at school and away from school? AEPP. 2013;35(2):341-59.	Peer-reviewed publication: review of the effects that school environment and nutrition policies have on students who access the National School Lunch Program in the United States.	Meal policies did not have an impact on participation in the lunch program.
Robinson-O'Brien R, Story M, Heim S. Impact of garden-based youth nutrition intervention programs: a review. J Am Diet Assoc. 2009;109(2):273-80.	Peer-reviewed publication: review of 11 studies to assess the impact of gardening programs for youth on nutrition outcomes.	Nutrition education provided with gardening programs may help improve diet quality in youth and their willingness to experiment with new vegetables and fruit.
Algert SJ, Baameur A, Renvall MJ. Vegetable output and cost savings of community gardens in San Jose, California. J Acad Nutr Diet. 2014;114(7):1072-6.	Peer-reviewed publication: assessment of the cost-savings obtained from community garden plots by measuring vegetable yields from 10 farmers.	Each plot saved \$435 over the course of the season. Garden plot yields were similar to those of biointensive farming practices and higher than conventional farming. Numerous variables affected the total yield, such as weather conditions and gardener skills.
MAIN PREMISE: STUDENT NUTRITION PROGRAMS PROVIDE HEALTHY FOODS TO STUDENTS		
Healthy Kids Panel for Ontario Ministry of Health and Long-term Care. No time to wait: the healthy kids strategy. Toronto: Queen's Printer for Ontario; 2013.	Government report: 2013 report by Ontario's Healthy Kids Panel that provides recommendations to the Ministry of Health and Long-term Care on how to reduce childhood obesity and improve health. Includes recommendations formed from evidence, parent and youth engagement, experts and relevant associations/organizations.	This report provides 23 recommendations for reducing overweight and obesity in Ontario's children through perinatal, environmental and community interventions and investments, including the development of a universal student nutrition program for public schools and First Nations communities.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: COMMUNITY-DIRECTED INITIATIVES CAN HELP ENSURE LOCAL NEEDS ARE MET		
Mares TM, A.H. A. Mapping the food movement: addressing inequality and neoliberalism. <i>Environ Soc: Adv in Res.</i> 2011;2:68-86.	Peer-reviewed publication: overview of four perspectives on food movements, including local food, community food security, food sovereignty and food justice.	Community food security initiatives focus on improving access to healthy food and ensuring food is a right. There is a need to ensure that initiatives are community oriented so that they are inclusive of all people, account for systemic oppressions and historical injustices, and build on traditional knowledge.
Hammelman C, Hayes-Conroy A. Understanding cultural acceptability for urban food policy. <i>J Plan Lit.</i> 2014; 30(1):37-48.	Peer-reviewed publication: review of literature to assess the use and implementation of cultural acceptability in urban food policy.	Cultural acceptability is often cited in food security literature, but is rarely defined, therefore making it difficult to incorporate into policy initiatives. Future work needs to include cultural acceptability in plans and throughout all aspects of the food system.

ACTION AREA 1.3:

Increased use of healthy and local food by public sector organizations

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: IMPROVING ACCESS TO HEALTHY FOOD WILL CHANGE NORMS AROUND FOOD		
Cancer Care Ontario, Ontario Agency for Health Protection and Promotion [PHO]. Taking action to prevent chronic disease: recommendations for a healthier Ontario. Toronto: 2012.	Government agency report: evidence- and expert-informed policy recommendations for chronic disease and cancer prevention.	This report provides 22 recommendations for reducing the risk of cancer and chronic disease in Ontario. Providing nutritious foods in publicly funded institutions can improve healthy eating and set new societal norms for food establishments.
Niebylski ML, Lu T, Campbell NR, Arcand J, Schermel A, Hua D, et al. Healthy food procurement policies and their impact. <i>Int J Environ Res Public Health.</i> 2014;11(3):2608-27.	Peer-reviewed publication: systematic review to determine the effects of policies directed at improving access and purchasing of healthy foods.	Procurement policies for healthy food increased purchases of healthy items and reduced purchases of unhealthy products. Implementing and evaluating healthy food policies in government and non-government organizations is recommended.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: LOCAL FOOD PROCUREMENT IN GOVERNMENT ORGANIZATIONS WILL STRENGTHEN THE MARKET LOCAL ECONOMY		
Wylie-Toal B, Panadyi P, Varangu L, Kanetkar V. Local food provision in Ontario's hospitals and long-term care facilities: Recommendations for stakeholders. University of Guelph & Ontario Ministry of Agriculture, Food and Rural Affairs Partnership Fund; 2013.	Expert report: recommendations to stakeholders on local food procurement for hospitals after assessing present hospital food procurement methods, challenges and opportunities in the current system, and case studies of institutions that have undergone these changes.	Recommendations are made for policy changes in the Ministry of Health and Long-Term Care, producers and hospital sites to increase local food procurement for use in patient meals and sales in hospital cafeterias.

ACTION AREA 1.4:

Increased distribution & promotion of equitably-priced, healthy and local food

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: THERE ARE MANY BARRIERS TO DISTRIBUTION AND PROMOTION OF HEALTHY LOCAL FOODS		
Dunn B. Increasing access to local food: policies from other places as a guide to increasing local food access through land use planning in Ontario. Toronto: Sustain Ontario & Canadian Environmental Law Association; 2013.	Expert report: jurisdictional review of policies that improve the physical accessibility of local food.	To increase access to local food, municipal and provincial policies need to plan for food access in all settings, including ensuring that healthy food is available everywhere and urban and peri-urban agriculture are feasible and promoted. This can be accomplished by providing and protecting land, ensuring adequate infrastructure, and reducing barriers to accessibility, such as restrictive bylaws.
Knezevic I, Landman K, Blay-Palmer A, Nelson E. Models and best practices for building sustainable food systems in Ontario and beyond. Guelph: Ontario Ministry of Agriculture, Food and Rural Affairs; 2013.	Expert report: review of local food systems practices and initiatives throughout five regions of Ontario.	Each region has unique needs and initiatives for ensuring sustainable food systems in the region. Similar successes and barriers to local food systems were found across regions; barriers included funding, policies and regional infrastructure, among others.
MAIN PREMISE: INVESTMENT IN PURCHASING LOCAL CAN IMPROVE ECONOMIC OUTCOMES		
Jennings A. The multiplier effect of buying local food Toronto: Sustain Ontario; 2012 [cited 2015]. Available from: http://sustainontario.com/2012/07/04/11208/news/multiplier-effect .	Review of the multiplier effect of local food purchasing and how it is applicable to Ontario agriculture.	Purchasing local food may increase the strength of the economy because it increases everyone's purchasing power instead of money leaving the region.

ACTION AREA 1.5:

Reduced access to high-calorie, low-nutrient food, beverages and snacks

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: POLICIES TO RESTRICT ACCESS TO UNHEALTHY FOOD CAN INCREASE CONSUMPTION OF HEALTHY FOOD		
Mayne SL, Auchincloss AH, Michael YL. Impact of policy and built environment changes on obesity-related outcomes: a systematic review of naturally occurring experiments. <i>Obes Rev.</i> 2015;16(5):362-75.	Peer-reviewed publication: systematic review of natural or quasi experiments on policy implementation and built environment changes related to nutrition and physical activity and their effects on obesity.	Local and school policies that changed types of food available show promising positive effects on improved diet. Policies that improved nutrition labelling had weak impacts on diet. Overall, it is difficult to evaluate the effects of these policy interventions on body mass index values and obesity.
Gamba RJ, Schuchter J, Rutt C, Seto EY. Measuring the food environment and its effects on obesity in the United States: a systematic review of methods and results. <i>J Community Health.</i> 2015;40(3):464-75.	Peer-reviewed publication: systematic review of 51 articles that assessed the community nutrition environment and its effects on obesity in adults and children living in the United States.	The majority (80%) of studies found an association between the community nutrition environment, (defined as food outlet location, density and type) and obesity.
Ganann R, Fitzpatrick-Lewis D, Ciliska D, Peirson LJ, Warren RL, Fieldhouse P, et al. Enhancing nutritional environments through access to fruit and vegetables in schools and homes among children and youth: a systematic review. <i>BMC Res Notes.</i> 2014;7:422.	Peer-reviewed publication: systematic review of 23 articles to assess the impact of interventions aimed at the nutrition environment at home, at school and in community settings on fruit and vegetable accessibility for children five to 18 years of age.	In comparison to other interventions, such as nutrition education, economic supplements, school nutrition programs, policies on point-of purchase and community programs, school policy interventions show the most impact in affecting the accessibility of vegetables and fruit in the food environment for children. Nutrition education interventions also had some effect on vegetable and fruit consumption at home.
MAIN PREMISE: TAXING NON-NUTRITIOUS FOODS MAY REDUCE THEIR CONSUMPTION		
Thow AM, Downs S, Jan S. A systematic review of the effectiveness of food taxes and subsidies to improve diets: Understanding the recent evidence. <i>Nutr Rev.</i> 2014;72(9):551-65.	Peer-reviewed publication: a systematic review to assess the effects of taxation on unhealthy food and drinks and subsidies for healthy food items, and the overall impact on diet.	Taxation and subsidies are able to change purchasing patterns and improve nutritional quality of food purchased. People with lower incomes will be most impacted by changes in food prices.
World Health Organization. Report of the commission on ending childhood obesity. Geneva: WHO Document Production Services; 2016.	Expert body report: six comprehensive recommendations and rationales for world governments to reduce childhood obesity throughout the lifecycle by implementing prevention policy and treating obesity.	A recommendation was made to implement a tax on sugar-sweetened beverages that is high enough to influence behaviours and reduce their consumption.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
Powell LM, Chriqui JF, Khan T, Wada R, Chaloupka FJ. Assessing the potential effectiveness of food and beverage taxes and subsidies for improving public health: a systematic review of prices, demand and body weight outcomes. <i>Obes Rev.</i> 2013;14(2):110-28.	Peer-reviewed publication: a systematic review to assess the effects of food and beverage taxes and subsidies, as well as price elasticity, on body weight in studies published between 2007 and 2012.	Sugar sweetened beverages are price elastic (-1.21); an increase in price by 20% from taxation will reduce consumption by 24%. Fast foods, vegetables and fruit were found to be price inelastic (-0.52, -0.48 and -0.49, respectively). Increases in prices for fast food would reduce consumption by half of the tax percentage increase. Alternatively, vegetable and fruit subsidies would increase consumption by half of the percentage reduction in price. Applying taxes and subsidies to different foods could assist in changing population consumption patterns.

ACTION AREA 1.6:

Enhanced food access through municipal, regional & community land use management and planning

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: EFFECTIVE LAND USE MANAGEMENT AND PLANNING WILL IMPROVE ACCESS TO LOCAL FOOD		
Dunn B. Increasing access to local food: policies from other places as a guide to increasing local food access through land use planning in Ontario. Toronto: Sustain Ontario & Canadian Environmental Law Association; 2013.	Expert report: jurisdictional review of policies that improve the physical accessibility of local food.	To increase access to local food, municipal and provincial policies need to plan for food access in all settings, availability of healthy food and urban and peri-urban agriculture. This can be accomplished by providing and protecting land, ensuring adequate infrastructure and reducing barriers to accessibility, such as restrictive bylaws; these policies have proven successful in other jurisdictions in Canada and the United States.
Dunn B. Preserving agricultural land for local food production: policies from other places as a guide to land use planning for Ontario. Toronto: Sustain Ontario & Canadian Environmental Law Association; 2013.	Expert report: review of potential policies used in different states and cities that protect agricultural land and the local food system.	Ontario needs to protect its agricultural land. Four tools were reviewed that have shown to protect agricultural land from development and destruction. These tools included planning and zoning, tax assistance, transferring development rights and offering incentives to invest in agriculture.



REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
<p>Huang D, Drescher M. Urban crops and livestock: the experiences, challenges, and opportunities of planning for urban agriculture in two Canadian provinces. <i>Land Use Policy</i>. 2015;43:1-14.</p>	<p>Peer-reviewed publication: assessment of strengths and weaknesses of urban agriculture policies in 10 municipalities in British Columbia and Ontario, Canada through policy reviews and key informant interviews.</p>	<p>Urban agriculture needs to be integrated into all aspects of urban planning, such as policies, regulations and bylaws, to be effective. While urban agriculture may be written into planning documents, implementation tools, such as bylaws, may still impede the ability for it to be used.</p>
<p>Knezevic I, Landman K, Blay-Palmer A, Nelson E. Models and best practices for building sustainable food systems in Ontario and beyond. Guelph: Ontario Ministry of Agriculture, Food and Rural Affairs; 2013.</p>	<p>Expert report: review of local food systems practices and initiatives in five regions of Ontario.</p>	<p>Each region has unique needs and initiatives to ensure sustainable food systems. Similar successes and barriers to local food systems were found across regions; barriers included funding, policies and regional infrastructure, among others.</p>
<p>MAIN PREMISE: INVESTMENT IN FOOD POLICY COUNCILS CAN IMPROVE MUNICIPAL AND REGIONAL FOOD SYSTEMS</p>		
<p>Schiff R. The role of food policy councils in developing sustainable food systems. <i>J Hunger Environ Nutr</i>. 2008;3(2-3):206-28.</p>	<p>Peer-reviewed publication: exploratory study on the role of food policy councils in food systems through analysis of interview data from 13 food policy councils in the United States.</p>	<p>Food policy councils play a role in recommending policy change to government. They also play roles as facilitators and networkers, do work-around programs and push for policy.</p>
<p>MacRae R, Donahue V. Municipal food policy entrepreneurs: a preliminary analysis of how Canadian cities and regional districts are involved in food system change. Toronto Food Policy Council, Vancouver Food Policy Council & Canadian Agri-Food Policy Institute; 2013.</p>	<p>Expert report: descriptive report on the structure and operation of 64 municipal and regional food policy councils in Canada.</p>	<p>Many different models for food policy councils exist. These councils are able to mobilize resources and network to support and work with municipal and regional departments on food policies and programs. Some challenges to success include staffing, funding, capacity and mobilization.</p>

FOOD LITERACY & SKILLS

ACTION AREA 2.1:

Increased knowledge, skills & capacity for all people in Ontario to eat healthy throughout their lives

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: CAPACITY NEEDS TO BE BUILT TO INCREASE FOOD LITERACY		
Desjardins E, Azevedo E. "Making something out of nothing": food literacy among youth, young pregnant women and young parents who are at risk for poor health. Toronto: Ontario Society of Nutrition Professionals in Public Health; 2013.	Cross-sectional study of food skills and barriers in teen and young parents 16 to 25 years of age in eight Ontario public health units.	Recommendations were made to reduce identified barriers to food literacy in young parents, including the social and psychological environment, the learning environment, living conditions and the food environment.
MAIN PREMISE: ENGAGEMENT IN FOOD PREPARATION AND NUTRITION KNOWLEDGE INCREASE THE LIKELIHOOD OF EATING HEALTHILY		
Larson NI, Perry CL, Story M, Neumark-Sztainer D. Food preparation by young adults is associated with better diet quality. J Am Diet Assoc. 2006;106(12):2001-7.	Peer-reviewed publication: cross sectional analysis of adolescents (ages 15 to 18) in a longitudinal study. Self-reported food preparation and dietary intake at five-year follow-up in males and females 18 to 23 years of age was assessed.	Of the adolescents who responded at five years' follow-up, those who purchased and prepared their own foods had improved diet quality and less frequent fast food purchases. Inadequate cooking skills were perceived as a barrier for one-quarter of males and one-fifth of females. These results show a need for improved food skills and cooking frequency.
Laska MN, Larson NI, Neumark-Sztainer D, Story M. Does involvement in food preparation track from adolescence to young adulthood and is it associated with better dietary quality? Findings from a 10-year longitudinal study. Public Health Nutr. 2012;15(7):1150-8.	Peer-reviewed publication: cross sectional analysis of adolescents (ages 15 to 18) in a longitudinal study at 10-year follow-up (ages 24 to 28) analyzing food preparation habits and diet quality.	Of the adolescents who responded at 10 years' follow-up at 24 to 28 years of age, people who cooked between 19 to 23 years of age were more likely than those who cooked during adolescence to continue to cook their own meals, consume vegetables and fruit, and eat breakfast, and were less likely to consume fast food. Continued involvement in food preparation into young adulthood contributes to healthy eating habits in adulthood.
Chenhall C. Improving cooking and food preparation skills: a synthesis of the evidence to inform program and policy development. Ottawa: Government of Canada, Health Canada; 2010.	Government report: literature review of food literacy knowledge and gaps in Canada and internationally.	This report provides common themes surrounding the state of food literacy, and opportunities and barriers to improving food literacy in Canada.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
Vaitkeviciute R, Ball LE, Harris N. The relationship between food literacy and dietary intake in adolescents: a systematic review. <i>Public Health Nutr.</i> 2015;18(4):649-58.	Peer-reviewed publication: systematic review of studies assessing food literacy and dietary intake in adolescents ages 10 to 19.	Adolescents with increased food literacy, particularly knowledge and food preparation skills, were found to have healthier diets in 60% of studies. Some studies found improved diets in adolescents who helped prepare meals, but unhealthy food choices were more likely to occur in those who helped with shopping.
Spronk I, Kullen C, Burdon C, O'Connor H. Relationship between nutrition knowledge and dietary intake. <i>Br J Nutr.</i> 2014;111(10):1713-26.	Peer-reviewed publication: systematic review assessing dietary intake in relation to knowledge of nutrition.	This review showed a positive association between nutrition knowledge and dietary intake in adults. Improvements were often seen in vegetable and fruit consumption.

ACTION AREA 2.2:

Increased access to public information about healthy eating through retailers & food service

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: NUTRITION LABELLING IN STORES AND RESTAURANTS WILL AID PEOPLE IN MAKING HEALTHIER CHOICES		
Sinclair SE, Cooper M, Mansfield ED. The influence of menu labeling on calories selected or consumed: a systematic review and meta-analysis. <i>J Acad Nutr Diet.</i> 2014;114(9):1375-88 e15.	Peer-reviewed publication: systematic review and meta-analysis of studies that assessed the effects of menu labelling presence and format on food selection of adolescents or adults.	Menu labelling with contextual and interpretive information affected menu selection, predominately in females. Display of calories alone did not have an effect on selection.
Swartz JJ, Braxton D, Viera AJ. Calorie menu labeling on quick-service restaurant menus: an updated systematic review of the literature. <i>Int J Behav Nutr Phys Act.</i> 2011;8:135.	Peer-reviewed publication: systematic review of experimental or quasi experimental studies assessing the impact of menus labelled with caloric information on the selections of adolescents or adults.	Calorie labelling alone on restaurant menus does not decrease amount of calories purchased.
Healthy Kids Panel for Ontario Ministry of Health and Long-term Care. No time to wait: the healthy kids strategy. Toronto: Queen's Printer for Ontario; 2013.	Government report: 2013 report by Ontario's Healthy Kids Panel that provides recommendations to the Ministry of Health and Long-Term Care on how to reduce childhood obesity and improve health. Includes recommendations formed from evidence, parent and youth engagement, experts and relevant associations/ organizations.	This report provides 23 recommendations for reducing overweight and obesity in Ontario children through perinatal, environmental and community interventions and investments, including improving food labelling and nutrition information in restaurants and grocery stores.

<i>REFERENCE</i>	<i>TYPE OF STUDY</i>	<i>KEY FINDINGS RELATED TO MAIN PREMISE</i>
Hawley KL, Roberto CA, Bragg MA, Liu PJ, Schwartz MB, Brownell KD. The science on front-of-package food labels. <i>Public Health Nutr.</i> 2013;16(3):430-9.	Peer-reviewed publication: review of literature on front-of-package labelling and shelf labelling at grocery stores and their effects on consumer selections.	Multiple traffic light labels were most useful in aiding consumers in food selection. Labels need to be consistently placed from product to product and should contain more comprehensive information, such as calories and how nutrient levels compare. Shelf labelling aided in food selection; labels should be consistent across stores.
<i>MAIN PREMISE: MENU LABELLING WILL CAUSE RESTAURANTS TO ALTER RECIPES AND INCLUDE HEALTHIER ITEMS</i>		
Bleich SN, Wolfson JA, Jarlenski MP. Calorie changes in chain restaurant menu items: Implications for obesity and evaluations of menu labeling. <i>Am J Prev Med.</i> 2015;48(1):70-5.	Peer-reviewed publication: assessed change in calories of menu items at 66 of 100 largest United States chain restaurants from 2012 to 2013.	Pending menu labeling laws may cause restaurants to change their menu items pre-emptively to contain fewer calories.
Namba A, Auchincloss A, Leonberg BL, Wootan MG. Exploratory analysis of fast-food chain restaurant menus before and after implementation of local calorie-labeling policies, 2005-2011. <i>Prev Chronic Dis.</i> 2013;10:E101.	Peer-reviewed publication: exploratory study to compare calories and menu items in fast food chain restaurants with locations in areas with and without menu labelling policies, 2005 to 2011.	Chain locations in areas with menu labelling policies had more food options considered healthy than locations without policies. Average calories remained the same in each.

ACTION AREA 2.3:

Restricted advertisement of unhealthy foods, beverages, & snacks to children (under 12)

<i>REFERENCE</i>	<i>TYPE OF STUDY</i>	<i>KEY FINDINGS RELATED TO MAIN PREMISE</i>
<i>MAIN PREMISE: A BAN ON ADVERTISING TO CHILDREN IS REQUIRED TO BE MOST EFFECTIVE AND TO ENSURE CORPORATION COMPLIANCE</i>		
Galbraith-Emami S, Lobstein T. The impact of initiatives to limit the advertising of food and beverage products to children: A systematic review. <i>Obes Rev.</i> 2013;14(12):960-74.	Peer-reviewed publication: systematic review of statutory and voluntary restricted advertising to children of unhealthy food, beverages and snacks.	Little change in children's exposure to advertising of unhealthy products is made in places where restriction is voluntarily made by industry due to few corporations opting in. Statutory bans reduced exposure of advertising to children in child-targeted ads.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
Brambila-Macias J, Shankar B, Capacci S, Mazzocchi M, Perez-Cueto FJA, Verbeke W, et al. Policy interventions to promote healthy eating: a review of what works, what does not, and what is promising. <i>Food Nutr Bull.</i> 2011;32(4):365-75.	Peer-reviewed publication: review of literature on different policy interventions in the European Union and internationally to assess promising practices.	There are numerous healthy eating policies in place worldwide, including those that inform consumers, change the food environment and affect healthy eating indirectly.
MAIN PREMISE: ADVERTISING TO CHILDREN INCREASES CONSUMPTION OF UNHEALTHY FOOD, BEVERAGES AND SNACKS		
Dietitians of Canada, Sheeshka JD. Advertising of food and beverages to children; position of Dietitians of Canada. Toronto: Dietitians of Canada; 2010.	Expert report: Position paper from Dietitians of Canada on advertising food and beverages to children. Reviews of scientific and grey literature, and key informant interview results informed the recommendations. This included reviews of present and recommended legislation in Canada and worldwide.	A review of literature showed that children are unable to understand advertising intent, and that advertising influences food preferences and increases demand for unhealthy items.
Jenkin G, Madhvani N, Signal L, Bowers S. A systematic review of persuasive marketing techniques to promote food to children on television. <i>Obes Rev.</i> 2014;15(4):281-93.	Peer-reviewed publication: systematic review of persuasive marketing techniques used in food television advertisements targeting children.	Television advertisements promoting unhealthy foods used characters, health claims, taste, fun and free toys, as well as other offers, to incentivize products to children. Documenting and monitoring techniques will be needed to ensure that corporations comply with bans.
Healthy Kids Panel for Ontario Ministry of Health and Long-term Care. No time to wait: the healthy kids strategy. Toronto: Queen's Printer for Ontario; 2013.	Government report: 2013 report by Ontario's Healthy Kids Panel that provides recommendations to the Ministry of Health and Long-Term Care on how to reduce childhood obesity and improve health. Includes recommendations formed from evidence, parent and youth engagement, experts and relevant associations/ organizations.	This report provides 23 recommendations for reducing overweight and obesity in Ontario children through perinatal, environmental and community interventions and investments. Recommendations include banning the marketing of high-calorie, low-nutrient foods, beverages and snacks to children under age 12.
Dhar T, Baylis K. Fast-food consumption and the ban on advertising targeting children: the Quebec experience. <i>J Mark Res.</i> 2011;48:799-813.	Peer-reviewed publication: Quebec household expenditure data from 1984 to 1992 is used to determine the effects the ban on advertising to children under 13 years of age had on fast food expenditure.	Ban on advertising to children under 13 years in Quebec has resulted in long-term effects on their consumption patterns. French speaking children raised in Quebec are less likely to purchase fast food than English speaking households in Quebec and in Ontario because English speakers have access to English advertising found across the rest of the country.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
Institute of Medicine [U.S], Committee on Food Marketing and the Diets of Children and Youth. Food marketing to children and youth: Threat or opportunity? Washington; 2006.	Expert body report: review of academic and grey literature on the effects of food and beverage marketing on diet quality and health of children and youth.	This report provides findings on the literature surrounding food and beverage marketing, as well as potential strategies and recommendations to address these issues. Food and beverage marketing influences preferences and requests for products in children two to 11 years old and may influence beliefs. In addition, it influences short-term consumption, with moderate evidence showing it influences usual dietary intake.
World Health Organization. Report of the commission on ending childhood obesity. Geneva: WHO Document Production Services; 2016.	Expert body report: six comprehensive recommendations and rationales for world governments to help them reduce childhood obesity throughout the lifecycle by implementing prevention policy and treating obesity.	This report recommends reducing children's exposure to marketing and the impact of marketing on children to minimize its contribution to unhealthy eating patterns. Implementation of the World Health Organization Set of Recommendations on the Marketing of Foods and Non-alcoholic Beverages to Children (2010) is called for.

ACTION AREA 2.4:

Increased availability of professional nutrition services in health, community & work settings

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: INCREASED ACCESS TO NUTRITION INFORMATION FROM PROFESSIONALS WILL IMPROVE HEALTH		
Rees K, Dyakova M, Ward K, Thorogood M, Brunner E. Dietary advice for reducing cardiovascular risk. Cochrane Database Syst Rev. 2013;3:CD002128.	Cochrane Review of studies to assess the effects of nutrition advice on changes to diet and health outcomes of healthy adults.	Dietary advice helps to reduce fat and salt intake, and increase fibre, fruit and vegetable consumption, leading to improved health markers and reduction in coronary heart disease and stroke.
Young K, Bunn F, Trivedi D, Dickinson A. Nutritional education for community dwelling older people: a systematic review of randomised controlled trials. Int J Nurs Stud. 2011;48(6):751-80.	Peer-reviewed publication: systematic review of randomized control trials that assessed the effects of nutrition education interventions on older adults.	Nutrition education contributed to changes in diet, health indicators and improved physical function in people age 65 and over who were living at home.
Goode AD, Reeves MM, Eakin EG. Telephone-delivered interventions for physical activity and dietary behavior change: an updated systematic review. Am J Prev Med. 2012;42(1):81-8.	Peer-reviewed publication: systematic review of interventions on dietary and/or physical activity in adults delivered by telephone between 2006 and 2010.	Telephone-delivered interventions for diet and physical activity resulted in positive behaviour changes being made and maintained.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: NUTRITION PROFESSIONALS HAVE THE KNOWLEDGE AND SKILLS TO DISSEMINATE APPROPRIATE NUTRITION INFORMATION		
van Gerwen M, Franc C, Rosman S, Le Vaillant M, Pelletier-Fleury N. Primary care physicians' knowledge, attitudes, beliefs and practices regarding childhood obesity: a systematic review. <i>Obes Rev.</i> 2009;10(2):227-36.	Peer-reviewed publication: systematic review of the knowledge and practices of physicians working with children who are obese.	Physicians have limited training in assessing and managing childhood obesity; referrals are often made to dietitians for nutrition and diet concerns.
Royall D. A systematic review of the effectiveness of nutrition counselling interventions by dietitians in outpatient and in workplace settings. Toronto: Dietitians of Canada; 2009.	Expert report: systematic review of the effectiveness of nutrition interventions for adults by dietitians in outpatient settings for prevention and treatment of chronic disease, and workplace initiatives.	Nutrition interventions provided by dietitians are able to aid in prevention of weight gain, assist in lifestyle changes, prevent and manage diabetes, and improve health indicators related to cardiovascular disease.
Ciliska D, Thomas H, Catallo C, Gauld M, Kingston D, Cantwell B, et al. The effectiveness of nutrition interventions for prevention and treatment of chronic disease in primary care settings: a systematic literature review. Toronto: Dietitians of Canada; 2006.	Expert report: systematic review of the effectiveness of nutrition interventions on prevention and treatment of chronic diseases for all age groups, and dietitians' effectiveness in providing these services in comparison to other healthcare providers.	Nutrition interventions are effective in managing diabetes, reducing rates of low-birth-weight babies, and altering diet composition and health indicators. Counselling received from dietitians was more likely to change fat and cholesterol intake.

ACTION AREA 2.5:

Enhanced services to identify, refer & treat people at early risk of obesity or chronic disease

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: APPROPRIATE SCREENING TOOLS CAN IDENTIFY PEOPLE AT RISK OF CHRONIC DISEASE OR OBESITY		
Randall Simpson JA, Keller HH, Rysdale LA, Beyers JE. Nutrition Screening Tool for Every Preschooler (NutriSTEP): validation and test-retest reliability of a parent-administered questionnaire assessing nutrition risk of preschoolers. <i>Eur J Clin Nutr.</i> 2008;62(6):770-80.	Peer-reviewed publication: pilot of the Nutrition Screening Tool for Every Preschooler (NutriSTEP®) to determine validity and reliability.	The NutriStep® tool is able to accurately and consistently measure nutritional risk in pre-schoolers when administered by parents or nutrition professionals.
Beath H, Keller HH. Nutrition screen showed good agreement when self- and interviewer-administered. <i>J Clin Epidemiol.</i> 2007;60(10):1085-9.	Peer-reviewed publication: pilot of Seniors in the Community Risk Evaluation for Eating and Nutrition (SCREEN®) to determine if it is valid and reliable when administered by an interviewer.	The SCREEN® tool is able to accurately and consistently measure nutritional risk in older adults living in the community when self-administered or administered by an interviewer.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: USE OF NUTRITION SERVICES BY AT-RISK POPULATIONS CAN IMPROVE HEALTH OUTCOMES		
Young K, Bunn F, Trivedi D, Dickinson A. Nutritional education for community dwelling older people: a systematic review of randomised controlled trials. <i>Int J Nurs Stud.</i> 2011;48(6):751-80.	Peer reviewed publication: systematic review of randomized control trials that assessed the effects of nutrition education interventions on older adults.	Nutrition education contributed to changes in diet, health indicators and improved physical function in people ages 65 and over who were living at home.
Rees K, Dyakova M, Ward K, Thorogood M, Brunner E. Dietary advice for reducing cardiovascular risk. <i>Cochrane Database Syst Rev.</i> 2013;3:CD002128.	Cochrane Review of studies to assess the effects of nutrition advice on changes to diet and health outcomes of healthy adults.	People diagnosed with coronary heart disease were more likely to adhere to dietary advice and change their diet. Reduction in fat and salt intake, and increased fibre, fruit and vegetable consumption were seen and led to improved health markers.
Ciliska D, Thomas H, Catallo C, Gauld M, Kingston D, Cantwell B, et al. The effectiveness of nutrition interventions for prevention and treatment of chronic disease in primary care settings: a systematic literature review. Toronto: Dietitians of Canada; 2006.	Expert report: systematic review of the effectiveness of nutrition interventions on prevention and treatment of chronic diseases for all age groups, and dietitians' effectiveness in providing these services in comparison to other healthcare providers.	Nutrition interventions are effective in managing diabetes, reducing rates of low-birth-weight babies, and altering diet composition and health indicators. Counselling received from dietitians was more likely to change fat and cholesterol intake among primary care patients in comparison to that received from other healthcare providers.
Royall D. A systematic review of the effectiveness of nutrition counselling interventions by dietitians in outpatient and in workplace settings. Toronto: Dietitians of Canada; 2009.	Expert report: systematic review of the effectiveness of nutrition interventions for adults by dietitians in outpatient settings for prevention and treatment of chronic disease, and workplace initiatives.	Nutrition interventions provided by dietitians are able to aid in prevention of weight gain and assist in lifestyle changes, prevent and manage diabetes, and improve health indicators related to cardiovascular disease.
MAIN PREMISE: MULTIDISCIPLINARY HEALTHCARE TEAMS IMPROVE HEALTH OUTCOMES		
Dinh T, Bounajm F. Improving primary health care through collaboration: briefing 3 — measuring the missed opportunity. Ottawa: The Conference Board of Canada; 2013.	Expert report: briefing on benefits, present situation and cost-effectiveness of multidisciplinary healthcare teams.	Multidisciplinary healthcare teams can have a positive impact on health outcomes and save billions of dollars in direct and indirect costs. Presently there is limited access to these teams.

HEALTHY FOODS SYSTEM

ACTION AREA 3.1:

Improved economic viability of food systems & sustainable livelihoods

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: INCOMES OF FARMERS AND FARM WORKERS HAVE BEEN STAGNANT		
National Farmers Union. Farms, farmers and agriculture in Ontario: an overview of the situation in 2011. Saskatoon: National Farmers Union; 2011.	Agency report: overview of statistics on farms and farmers in Ontario and how agriculture has changed over many decades.	This report reviews the number of farms and farm sizes, income and debts, farm diversity, and imports and exports of food into the province. Trends show that the number of farms has decreased, while farm size has increased; commodity prices have also remained stagnant, while retail prices increased, and farmers rely more often on outside sources of income.
MAIN PREMISE: SUPPORT IS NEEDED FOR FARMERS AS CLIMATE CHANGES AND INCREASES FOOD SYSTEMS VULNERABILITY; DIFFERENT FARMING PRACTICES NEED TO BE IMPLEMENTED		
Kubursi AA, Cummins H, MacRae R, Kanaroglou P. Dollars & sense: opportunities to strengthen southern Ontario's food system. Toronto: Metcalf Foundation, J.W. McConnell Family Foundation & Friends of the Greenbelt Foundation; 2015.	Expert report: assessment of economic and environmental impacts of southern Ontario's food system. Economic and environmental outcomes of five different scenarios are also modelled.	Ontario's food system provides over 10% of jobs in Ontario. Economic impacts of the food system are large when factoring in direct and indirect impacts and could be greater if food production increased. Direct, indirect and induced environmental outcomes are largely found in the region where a product is grown. Replacing portions of food imports and increasing consumption of local vegetables and fruit, as well as shifts to optimal and local diet, could improve economic outcomes.
Canadian Federation of Agriculture. Towards a national food strategy: a framework for securing the future of food. Ottawa; 2012.	Expert report: National Food Strategy developed through stakeholder consultation with producers, processors, distributors, retailers, consumers and other key players in the food system.	The National Food Strategy promotes nine strategic objectives and subsequent outcomes to ensure an environmentally, socially and economically sustainable food system that includes minimizing barriers to profitability, supporting innovation and investing in education.

<i>REFERENCE</i>	<i>TYPE OF STUDY</i>	<i>KEY FINDINGS RELATED TO MAIN PREMISE</i>
Stuckey J, Charman C, Le Vallee JC. Reducing the risk: addressing the environmental impacts of the food system. Ottawa: Conference Board of Canada; 2013.	Expert report: review of literature, secondary data and key informant interviews on the food system's impact on soil, water, air and waste, and stakeholder responsibilities in reducing environmental impacts.	The production, manufacturing and retail sectors of the food system all have environmental impacts, with production having the largest. Government, consumers and business are all responsible for reducing the environmental impact of the food system, which can be accomplished by establishing targets. Six steps are proposed to improve governance on food system environmental risks, including support for beneficial management practice, taxes and incentives for sectors to make changes to support the environment, and greening agricultural income support policies, such as through providing environmental targets with monetary support or assessing environmental impact of income support criteria (e.g., implications of higher production volume).

ACTION AREA 3.2:

Increased protection & use of farmland, forests, waterways & urban land for food production

<i>REFERENCE</i>	<i>TYPE OF STUDY</i>	<i>KEY FINDINGS RELATED TO MAIN PREMISE</i>
<i>MAIN PREMISE: PROTECTIVE MEASURES ON FARMLAND, FORESTS, WATERWAYS AND URBAN LAND REDUCE DEVELOPMENT AND DESTRUCTION OF VIABLE ECOSYSTEMS FOR IMPROVED LONG-TERM LOCAL FOOD PRODUCTION</i>		
Francis CA, Hansen TE, Fox AA, Hesje PJ, Nelson HE, Lawseth AE, et al. Farmland conversion to non-agricultural uses in the US and Canada: current impacts and concerns for the future. <i>Int J Agr Sustain.</i> 2012;10(1):8-24.	Peer-reviewed publication: review of loss of farmland in the United States and Canada, and present policies implemented to protect farmlands.	Canada is losing fertile farmland to urban expansion, with the greatest loss in Ontario. This loss of agricultural land has impacts on the amount of food produced. Inputs are needed on lower quality lands to achieve the same yields.
Dunn B. Preserving agricultural land for local food production: policies from other places as a guide to land use planning for Ontario. Toronto: Sustain Ontario & Canadian Environmental Law Association; 2013.	Expert report: review of potential policies used in different states and cities that protect agricultural land and the local food system.	Ontario needs to protect its agricultural land. Four tools were reviewed that have shown to protect agricultural land from development and destruction: planning and zoning, tax assistance, transferring development rights and offering incentives to invest in agriculture.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
<p>Eilers W, MacKay R, Graham L, Lefebvre A. Environmental sustainability of Canadian agriculture. Ottawa: Agriculture and Agri-Food Canada; 2011.</p>	<p>Government report: third report card of agri-environmental performance indicators for soil, water and air qualities, farm land management, and food and beverage industries in Canada, assessing changes from 1981 to 2006.</p>	<p>Overall in Canada improvements have been made in agricultural practices. Between 1981 and 2006, Ontario improved soil cover and risk of erosion on agricultural farm land. Farm land declined in this period and land use intensified; conventional tillage decreased and was replaced with conservation tillage. However, soil organic matter decreased, ammonia emissions increased, and risks of water contamination by nitrogen and pesticides increased, indicating a continued need for change.</p>
<p>Albanese M, Setzkorn M. Linking land protection and stewardship. Guelph: Orland Conservation & Ontario Farmland Trust; 2013.</p>	<p>Agency report: mixed method study to explore how organizations, agencies and individuals believe land conservation can be improved. Members in 10 areas of southern Ontario were selected to complete web surveys; six regions were selected to partake in workshops.</p>	<p>Areas in Halton Region, Niagara Region, Perth-Huron Counties, Prince Edward County, Wellington County and York Region had many suggestions on how to strengthen land protection and stewardship. Recommendations included collaboration, strategies for communication, land securement and stewardship, agricultural support, government partners and programs for landowners.</p>
<p>McCallum C. Farmland requirements for Ontario's growing population to 2036. Guelph: Ontario Farmland Trust; 2012.</p>	<p>Expert report: literature review of Ontario agriculture land and policy, and modelling of agricultural needs for self-sufficiency based on population projection for 2036 and differing variables, including ideal food consumption patterns based on Canada's Food Guide, production levels and waste.</p>	<p>Based on the size of agricultural land and the population in 2009, Ontario could have been self-sufficient for a diet based on Canada's food guide. Projections show an overall deficit in food production as the population continues to increase.</p>
<p>Huang D, Drescher M. Urban crops and livestock: The experiences, challenges, and opportunities of planning for urban agriculture in two Canadian provinces. Land Use Policy. 2015;43:1-14.</p>	<p>Peer-reviewed publication: assessment of strengths and weaknesses of urban agriculture policies in 10 municipalities in British Columbia and Ontario, Canada through policy reviews and key informant interviews.</p>	<p>Urban agriculture needs to be integrated into all aspects of urban planning, such as policies, regulations and bylaws, to be effective. While urban agriculture may be written into planning documents, implementation tools, such as bylaws, may still impede the ability for it to be used.</p>

ACTION AREA 3.3:

Enhanced recruitment & skills building to expand the food systems workforce

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: THERE IS A NEED TO SUPPORT NEW ENTRANTS BECAUSE THE NUMBER OF FARMERS HAS DECREASED AND THEIR MEDIAN AGE IS RISING		
National Farmers Union. Farms, farmers and agriculture in Ontario: an overview of the situation in 2011. Saskatoon: National Farmers Union; 2011.	Agency report: overview of statistics on farms and farmers in Ontario and how agriculture has changed over many decades.	This report reviews the number of farms and farm sizes, income and debts, farm diversity, and imports and exports of food into the province. Trends show that Ontario farmers are largely between 35 and 54 years old, with the average age being 53. Fewer young people are entering the farming sector, which may be due to economic barriers.
MAIN PREMISE: EDUCATION ON FARMING PRACTICES, FOOD SYSTEMS MANAGEMENT AND BUSINESS MODELS WILL ENSURE BEST PRACTICES ARE USED FOR ECOLOGICAL AND ECONOMIC SUSTAINABILITY		
Ivens H, Bloom S, Young C. Supporting success: coaching, mentorship and advising for new farmers in Ontario. Guelph: FarmON Alliance; 2012.	Expert report: review of educational resources available to new farmers for coaching, mentoring and advising gathered through company and organizational profiles and interviews.	Services for coaching, mentoring and advising can be greatly beneficial for new farmers because it allows for knowledge and experience to be shared. These services can save new farmers money, time and labour; however, there can be barriers to finding guidance and costs associated with accessing programs.
Young C, English A, Bloom S. Learning to become a farmer: findings from a FarmON Alliance survey of new farmers in Ontario. Guelph: FarmON Alliance; 2012.	Expert report: survey between 2009 and 2011 of 430 individuals involved in farming in Ontario to determine needs for training and education in the province.	Of the new farmers, the majority are below 40 years of age. The survey found that more investment is needed in providing relevant educational resources to new farmers.
MAIN PREMISE: EDUCATION AND SKILL-BUILDING IN THE AGRI-FOOD SECTOR IS REQUIRED FOR CONTINUED GROWTH		
Ontario Agricultural College, Food and Beverage Ontario. Planning for Ontario's future agri-food workforce: a report on agriculture and food and beverage processing training in Ontario colleges and universities. Guelph: 2014.	Expert report: assessment of Ontario educational programs in the agri-food sector identifying opportunities and gaps through literature reviews and stakeholder interviews.	There is a need for skilled workers in the agri-food sector, particularly with culinary arts, food science and food technology education. Some existing programs need to be promoted further, while others need to increase their capacity to meet interest. In addition, the sector is experiencing gaps in workers with particular skill sets, so new programs also need to be developed to increase the number of skilled workers.

ACTION AREA 3.4:

Increased production of healthy & safe food

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: THE ONTARIO FOOD SYSTEM RELIES ON MANY IMPORTS, AND INCREASING LOCAL FOOD PRODUCTION CAN REDUCE THIS RELIANCE AND MEET CONSUMER DEMANDS		
Kubursi AA, Cummins H, MacRae R, Kanaroglou P. Dollars & sense: opportunities to strengthen southern Ontario's food system. Toronto: Metcalf Foundation, J.W. McConnell Family Foundation & Friends of the Greenbelt Foundation; 2015.	Expert report: assessment of economic and environmental impacts of southern Ontario's food system. Economic and environmental outcomes of five different scenarios are also modelled.	Ontario's food system provides over 10% of jobs in Ontario. Economic impacts of the food system are large when factoring in direct and indirect impacts, and could be greater if food production increased. Direct, indirect and induced environmental outcomes are largely found in the region where a product is grown. Replacing portions of food imports and increasing consumption of local vegetables and fruit, as well as shifts to optimal and local diet, could improve economic outcomes and reduce emissions in transportation.
MAIN PREMISE: ADEQUATE INFRASTRUCTURE IS REQUIRED TO PRODUCE, PROCESS AND DISTRIBUTE FOOD		
Edge J. Cultivating opportunities: Canada's growing appetite for local food. 2013; Ottawa, ON: The Conference Board of Canada; 2013.	Expert report: exploration of economic impacts of local food systems, the demand for local food in Canada, and opportunities and challenges for small and medium enterprise producers, large food processors and distributors in bolstering local food systems. Overview of regional and provincial policies that support local food.	The report provides 12 strategies on how to strengthen the local food systems in Canada to increase profit and distribution of local food to consumers. It focuses on how small and medium-sized enterprises can work together with larger businesses, such as through processing infrastructure development, to increase accessibility to small and medium-sized enterprises and increased distribution mechanisms, such as food hubs.
National Farmers Union (NFU). Farms, farmers and agriculture in Ontario: an overview of the situation in 2011. Saskatoon, SK: National Farmers Union; 2011. Available from http://www.nfu.ca/sites/www.nfu.ca/files/farm_ontario.pdf .	Agency report: overview of statistics on farms and farmers in Ontario and how agriculture has changed over many decades.	This report reviews the number of farms and farm sizes, income and debts, farm diversity, and imports and exports of food into the province. Trends show that the number of farms has decreased, while farm size has increased; commodity prices have also remained stagnant, while retail prices increased, and farmers rely more often on outside sources of income.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
Donald B. From Kraft to craft: innovation and creativity in Ontario's food economy. Toronto, ON: Martin Prosperity Institute; 2009.	Expert report: review of Ontario food industry and examples of local food production.	This report provides examples of different Ontario producers and processors who successfully changed and found niches within the food system. It also highlights potential policy areas that could improve the food system in Ontario if implemented.

ACTION AREA 3.5:

Increased protection and support for farm & food workers, including migrant workers, to ensure health & well-being

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: IT IS IMPORTANT TO PROVIDE A WORK ENVIRONMENT THAT PROMOTES THE HEALTH OF WORKERS, INCLUDING INCREASED TRAINING, HEALTH SERVICES AND PROTECTION		
McLaughlin J. Migration and health: implications for development, a case study of Mexican and Jamaican migrants in Canada's Seasonal Agricultural Workers Program. Ottawa: The Canadian Foundation for the Americas (FOCAL); 2009.	Policy paper: effects of Canada's Seasonal Agricultural Workers Program (SWAP) on migrants' health and healthcare access in Canada, Mexico and Jamaica, and policy options to improve outcomes. Recommendations based on ethnographic research from 2005 and 2009 in Ontario, central Mexico and southern Jamaica. Research methods included participant observation and qualitative interviews with workers, healthcare providers, government officials and employers.	Many agricultural workers face poor health outcomes from their jobs. Several barriers are present to accessing healthcare options in Canada, and healthcare options upon returning to Jamaica and Mexico can be limited. Migratory work can cause excess strain on families, affecting relationships, mental and physical health.
Pysklywec M, McLaughlin J, Tew M, Haines T. Doctors within borders: meeting the health care needs of migrant farm workers in Canada. CMAJ. 2011;183(9):1039-43.	Peer-reviewed article on state of healthcare for migrant workers, health issues and barriers to healthcare access based on literature reviews and experiences in practice.	From practice and literature reviews, health issues most experienced by migrant farm workers are musculoskeletal, ocular, dermatologic, psychological, sexual and reproductive. Many health issues are related to the workplace. While all documented migrant farm workers have healthcare coverage, there are many barriers to access including physical, knowledge of services, language and services provided.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
Osborne A, Blake C, Fullen BM, Meredith D, Phelan J, McNamara J, et al. Prevalence of musculoskeletal disorders among farmers: A systematic review. <i>Am J Ind Med.</i> 2012;55(2):143-58.	Peer-reviewed publication: systematic review of literature between 1990 and 2009 on musculoskeletal disorders in farmers.	Farmers have higher rates of musculoskeletal disorders than non-farmers. Most common pain issues were found in the low back.
Preibish K, Otero G. Does citizenship status matter in Canadian agriculture? Workplace health and safety for migrant and immigrant laborers. <i>Rural Sociology.</i> 2014; 79(2): 174-199.	Peer-reviewed publication: comparative study on the health and safety of agricultural work for Mexican migrant farm workers and South Asian immigrant farm workers in British Columbia between 2007 and 2009. Face-to-face questionnaires with farm workers, in-depth interviews with stakeholders and secondary data were used.	Precarious work conditions were common for migrant and immigrant farm workers. Long working hours, minimal health and safety training, intensity of work, language barriers, unsafe transportation and housing conditions, and difficulty accessing adequate healthcare affect farm workers' health and safety. Precarious legal status had a more extreme effect on agricultural work practices, health and safety. Policy recommendations included a national strategy to protect agricultural labour, allowing agricultural workers to apply for permanent residency, and providing untied work permits to increase mobility between farms.

ACTION AREA 3.6:

Increased demand & preference for Ontario food products in all markets

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: IDENTIFIABLE STANDARDS FOR FOOD PRODUCTION AND PROCESSING ARE NEEDED		
Canadian Federation of Agriculture. Towards a national food strategy: a framework for securing the future of food. Ottawa: 2012.	Expert report: National Food Strategy developed through stakeholder consultation with producers, processors, distributors, retailers, consumers and other key players in the food system.	The National Food Strategy promotes nine strategic objectives and subsequent outcomes to ensure an environmentally, socially and economically sustainable food system that includes consumer education on food standards, and the benefits and advantages of domestic food choices.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: LOCAL FOOD SYSTEMS INCREASE LOCAL ECONOMIC OUTCOMES AND HAVE A MULTIPLIER EFFECT		
Kubursi AA, Cummins H, MacRae R, Kanaroglou P. Dollars & sense: opportunities to strengthen southern Ontario's food system. Toronto: Metcalf Foundation, J.W. McConnell Family Foundation & Friends of the Greenbelt Foundation; 2015.	Expert report: assessment of economic and environmental impacts of southern Ontario's food system. Economic and environmental outcomes of five different scenarios are also modelled.	Ontario's food system provides over 10% of jobs in Ontario. Economic impacts of the food system are large when factoring in direct and indirect impacts, and could be greater if food production increased. Direct, indirect and induced environmental outcomes are largely found in the region where a product is grown. Replacing portions of food imports and increasing consumption of local vegetables and fruit, as well as shifts to optimal and local diet, could improve economic outcomes. The farm sector has a multiplier effect of 2.24 on the economy in Ontario.
MAIN PREMISE: INCREASED DEMAND FOR LOCAL FOOD CAN SUPPORT INNOVATION AND CHANGES IN THE FOOD SYSTEM		
Edge J. Cultivating opportunities: Canada's growing appetite for local food. Ottawa: The Conference Board of Canada; 2013.	Expert report: exploration of economic impacts of local food systems, the demand for local food in Canada, and opportunities and challenges for small and medium enterprise producers, large food processors and distributors in bolstering local food systems. Overview of regional and provincial policies that support local food.	Canada produces food for local consumption as well as export. This report provides 12 strategies on how to strengthen the local food systems in Canada and reduce barriers to increase profit and distribution of local food to consumers. It also focuses on how small and medium-sized enterprises can work together with larger businesses to increase local foods in the market, as well as initiatives that can be undertaken to label and promote local food to consumers.
Donald B. From Kraft to craft- innovation and creativity in Ontario's food economy. Toronto: Martin Prosperity Group; 2009.	Report: review of Ontario food industry and examples of innovation in the local food system.	This report provides examples of different Ontario producers and processors who successfully changed and found niches within the food system. It also highlights potential policy areas that could improve the food system in Ontario if implemented.
Boeker A, Micheels E. Status of farm direct marketing. FARE Share. 2015; May.	Research report: summary of current trends in direct farm marketing.	From a survey of marketing and innovation practices, the trends show increasing involvement in direct marketing among all farm sizes, although smaller farms relied more heavily on a diverse set of direct marketing outlets.

<i>REFERENCE</i>	<i>TYPE OF STUDY</i>	<i>KEY FINDINGS RELATED TO MAIN PREMISE</i>
National Farmers Union. Farms, farmers and agriculture in Ontario: an overview of the situation in 2011. Saskatoon: National Farmers Union; 2011.	Agency report: overview of statistics on farms and farmers in Ontario and how agriculture has changed over the decades.	This report reviews the number of farms and farm sizes, income and debts, farm diversity, and imports and exports of food into the province. Trends show that the number of farms has decreased, while farm size has increased; commodity prices have also remained stagnant, while retail prices increased, and farmers rely more often on outside sources of income.
<i>MAIN PREMISE: IDENTIFIABLE STANDARDS FOR FOOD PRODUCTION AND PROCESSING ARE NEEDED</i>		
Canadian Federation of Agriculture. Towards a national food strategy: a framework for securing the future of food. Ottawa: 2012.	Expert report: National Food Strategy developed through stakeholder consultation with producers, processors, distributors, retailers, consumers and other key players in the food system.	The National Food Strategy promotes nine strategic objectives and subsequent outcomes to ensure an environmentally, socially and economically sustainable food system that includes consumer education on food standards, and the benefits and advantages of domestic food choices.

ACTION AREA 3.7:

Improved regulations, compliance & opportunities for innovation to ensure a safe, environmentally sound, healthy, robust & growing food & farming sector

<i>REFERENCE</i>	<i>TYPE OF STUDY</i>	<i>KEY FINDINGS RELATED TO MAIN PREMISE</i>
<i>MAIN PREMISE: THERE ARE MANY BARRIERS TO SMALL AND MEDIUM-SIZED ENTERPRISES ENTERING AND BEING COMPETITIVE IN THE MARKET, SO REGULATORY CHANGES ARE NEEDED</i>		
Edge J. Cultivating opportunities: Canada's growing appetite for local food. Ottawa: The Conference Board of Canada; 2013.	Expert report: exploration of economic impacts of local food systems, the demand for local food in Canada, and opportunities and challenges for small and medium enterprise producers, large food processors and distributors in bolstering local food systems. Overview of regional and provincial policies that support local food.	The report provides 12 strategies on how to strengthen the local food systems in Canada to increase profit and distribution of local food to consumers. It focuses on how small and medium-sized enterprises can work together with larger businesses to produce, process and distribute local food. The government's role in preserving agricultural land, reducing farm tax rates and zoning restrictions to improve the local food and farming sector is also discussed.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
Donald B. From Kraft to craft- innovation and creativity in Ontario's food economy. Toronto: Martin Prosperity Group; 2009.	Report: review of Ontario food industry and examples of local food production.	This report provides examples of different Ontario producers and processors who successfully changed and found niches within the food system. It also highlights potential policy areas that could improve the food system in Ontario if implemented.
Carter-Whitney M. Bringing local food home: legal, regulatory and institutional barriers to local food. Toronto: Friend of the Greenbelt Foundation; 2009.	Expert report: assessment of legal and regulatory barriers to local food through farmer and stakeholder interviews in the Greenbelt region. Jurisdictional case studies that have overcome the barriers are also examined.	The largest barriers to local food are institutional, including the distribution system, food labelling for country of origin and local food, health regulations, farmland property taxes and supply management systems.
Grant M, Butler E, Stuckey J. All together now: regulation and food industry performance. Ottawa: Conference Board of Canada; 2012.	Expert report: review of literature, secondary and primary data to determine how regulations in Canada impact food industry performance, the challenges and the opportunities for improvement.	Regulations can benefit as well as impede different industries depending on their scope and size. Eleven potential solutions are proposed to improve the food regulatory system in Canada.
Munro D, Stickey J, Butler E. Competing for bronze: innovation performance in the Canadian food industry. Ottawa: Conference Board of Canada; 2012.	Expert report: assessment of food industry innovation practices and opportunities. Views informed by literature review, survey data analysis and in-depth stakeholder interviews.	Innovation can improve economic viability and environmental sustainability of the food industry, but there are barriers that impede innovation. Seven potential solutions are proposed, including increased funding from government for research and innovation, improved communication between retailers and suppliers, and supporting environmentally sustainable initiatives.
Carter-Whitney M, Miller S. Nurturing fruit and vegetable processing in Ontario. Toronto: Metcalf Food Solutions; 2010.	Expert report: assessment of structural, legislative, economic and regulatory factors that are challenging for small and medium-scale farmers. Assessed through literature reviews and key informant interviews in food production and processing sectors.	The largest barriers to local food are institutional, including the distribution system, food labelling for country of origin and local food, health regulations, farmland property taxes and supply management systems

ACTION AREA 3.8:

Increased innovative financing for the food & farming sector

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: SUPPORT IS NEEDED FOR FARMERS, FOOD PROVIDERS AND FOOD BUSINESSES TO START, AS WELL AS CHANGE AND IMPROVE PRACTICES		
Stuckey J, Charman C, Le Vallee JC. Reducing the risk: addressing the environmental impacts of the food system. Ottawa: Conference Board of Canada; 2013.	Expert report: review of literature, secondary data and key informant interviews on food system's impact on soil, water, air and waste, and stakeholder responsibilities in reducing environmental impacts.	The production, manufacturing and retail sectors of the food system all have environmental impacts, with production having the largest. Government, consumers and business are all responsible for reducing the environmental impact of the food system, which includes establishing targets. Six steps are proposed to improve governance on food system environmental risks, including providing financial assistance and education.
Knezevic I, Landman K, Blay-Palmer A, Nelson E. Models and best practices for building sustainable food systems in Ontario and beyond. Guelph: Ontario Ministry of Agriculture, Food and Rural Affairs; 2013.	Report: assessment of local food initiative models and best practices throughout Ontario, excluding the Greater Toronto Area. One hundred and seventy-one interviews were conducted to assess barriers and challenges of each local food initiative. Following the initial interviews, in-depth interviews were conducted with nineteen of the initiatives and used as case studies.	This report provides an overview of successes and challenges that local food initiatives face throughout all regions of Ontario. Specific initiatives, successes and opportunities are provided for each region that reflects regional strengths, limitations and potential policy options. Challenges faced by many communities were obtaining sustainable funding sources.
Grant M, Butler E. Funding food: food and capital markets in Canada. Ottawa: Conference Board of Canada; 2013.	Expert report: assessment of capital needs and funding opportunities of food sector in Canada. Assessment completed through literature review, review of primary and secondary data, and in-depth stakeholder interviews.	Innovative funding could assist the production, processing and retail sectors of the food system to ensure they each remain competitive. Consumer demands can affect where capital is invested.

ACTION AREA 3.9:

Improved infrastructure & resources to support the continued growth of the food & farming sector

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: INFRASTRUCTURE UPGRADES AND EXPANSION ARE NEEDED TO STRENGTHEN FOOD SYSTEMS		
Edge J. Cultivating opportunities: Canada's growing appetite for local food. Ottawa: The Conference Board of Canada; 2013.	Expert report: exploration of economic impacts of local food systems, the demand for local food in Canada, and opportunities and challenges for small and medium enterprise producers, large food processors and distributors in bolstering local food systems. Overview of regional and provincial policies that support local food.	The report provides 12 strategies on how to strengthen the local food systems in Canada to increase profit and distribution of local food to consumers. It focuses on how small and medium-sized enterprises can work together with larger businesses, including improving infrastructure accessibility for small and medium-sized enterprises.
MAIN PREMISE: ECONOMICALLY COMPETITIVE RESOURCES ARE NEEDED FOR SECTOR GROWTH		
Ontario Federation of Agriculture. Growing Ontario: access to competitively priced energy. 2014. Guelph, ON: Ontario Federation of Agriculture; 2014 [May 15, 2015]. Available from http://www.ofa.on.ca/issues/additional-information/growing-ontarioaccess-to-competitively-priced-energy .	Briefing: overview of the high costs of electrical energy and the inaccessibility of natural gas to many farmers.	Costs for electrical energy are much higher than natural gas, increasing the costs of production, reducing farm income and making Ontario less competitive for the processing sector, which further impacts farms and the agricultural sector. Extensions of gas lines and competitive electricity rates are needed.
Knezevic I, Landman K, Blay-Palmer A, Nelson E. Models and best practices for building sustainable food systems in Ontario and beyond. Guelph: Ontario Ministry of Agriculture, Food and Rural Affairs; 2013.	Report: assessment of local food initiative models and best practices throughout Ontario, excluding the Greater Toronto Area. One hundred and seventy-one interviews were conducted to assess barriers and challenges of each local food initiative. Following the initial interviews, in-depth interviews were conducted with nineteen of the initiatives and used as case studies.	This report provides an overview of successes and challenges that local food initiatives face throughout all regions of Ontario. Specific initiatives, successes and opportunities are provided for each region that reflects regional strengths and limitations, and potential policy options.

ACTION AREA 3.10:

Reduced waste throughout Ontario's food systems

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: THE FOOD SYSTEM CREATES LARGE QUANTITIES OF WASTE, PLACING STRESSES ON THE IMMEDIATE AND SURROUNDING ENVIRONMENTS		
Stuckey J, Charman C, Le Vallee JC. Reducing the risk: addressing the environmental impacts of the food system. Ottawa: Conference Board of Canada; 2013.	Expert report: review of literature, secondary data and key informant interviews on food system's impact on soil, water, air and waste, and stakeholder responsibilities in reducing environmental impacts.	The production, manufacturing and retail sectors of the food system all have environmental impacts, with production having the largest. Government, consumers and business are all responsible for reducing the environmental impact of the food system, which includes establishing targets. Six steps are proposed to improve governance on food system environmental risks, including improving food waste knowledge in households.
Gooch M, Felfel A, Marenick N. Food waste in Canada: opportunities to increase the competitiveness of Canada's agri-food sector, while simultaneously improving the environment. Oakville: Value Chain Management Centre & George Morris Centre; 2010.	Expert report: review of literature on food waste in Canada to determine main sources and causes and potential solutions to reducing waste throughout the food system.	Canada wastes \$27 billion in food per year due to overproduction, defects, inappropriate processing, excessive transportation, waiting, and unnecessary inventory and motion. Behaviours of consumers, managers and those in governance contribute to these factors. Changes suggested include consumer education and improvement in the management of the food value chain.
Parizeau K, von Massow M, Martin R. Household-level dynamics of food waste production and related beliefs, attitudes, and behaviours in Guelph, Ontario. Waste Management. 2015;35:207-17.	Peer-reviewed publication: assessed waste in 68 households in Guelph, Ontario using observations of organic, recyclable and garbage waste production rates, and survey results of food waste-related beliefs, attitudes and behaviours.	Waste weights and survey results indicated that household food waste production stems from many interconnected factors, including shopping, food preparation and household waste management practices, as well as food and waste awareness, lifestyle and convenience. Policy and food system design solutions must recognize and attend to this diversity of factors to reduce food waste.
MAIN PREMISE: EFFICIENCY IN STORAGE, TRANSPORTATION AND PRODUCTION INPUTS CAN IMPROVE ENVIRONMENTAL AND ECONOMIC OUTCOMES		
Canadian Federation of Agriculture. Towards a national food strategy: a framework for securing the future of food. Ottawa: 2012.	Expert report: National Food Strategy developed through stakeholder consultation with producers, processors, distributors, retailers, consumers and other key players in the food system.	The National Food Strategy promotes nine strategic objectives and subsequent outcomes to ensure an environmentally, socially and economically sustainable food system that includes reducing waste by 10% per year and using by-products and waste as resources.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MacRae R, Cuddeford V, Young SB, Matsubuchi-Shaw M. The food system and climate change: an exploration of emerging strategies to reduce GHG emissions in Canada. <i>Agroecol Sust Food</i> . 2013;37(8):933-63.	Peer-reviewed publication: analysis of 20 cases that use lifecycle assessment modelling to determine change in emissions from baseline to new scenarios. Cases included localization, modal shifts, packaging, production, cooling and refrigeration, and consumption.	Greenhouse gas emissions will not be reduced enough solely through localization, transportation and modal shifts. Organic production shows the greatest reduction in emissions, but can be difficult to implement. Changes to the production, processing and consumption of vegetables and fruit, and animal products could greatly reduce greenhouse gas emissions. These changes include shifting vegetable and fruit transportation to rail, improving efficiency of cooling and refrigeration systems, and reducing waste. Reducing the population's consumption of animal products and switching to fish could also reduce emissions.

ACTION AREA 3.11:

Increased use of resilient practices to protect & conserve land, soil, water & biodiversity from environmental degradation

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: ECOLOGICAL PRACTICES CAN IMPROVE THE HEALTH OF SOIL AND THE ENVIRONMENT FOR LONG-TERM ENVIRONMENTAL HEALTH		
Stuckey J, Charman C, Le Vallee JC. Reducing the risk: addressing the environmental impacts of the food system. Ottawa: Conference Board of Canada; 2013.	Expert report: review of literature, secondary data and key informant interviews on food system's impact on soil, water, air and waste, and stakeholder responsibilities in reducing environmental impacts.	The production, manufacturing and retail sectors of the food system all have environmental impacts, with production having the largest. Government, consumers and business are all responsible for reducing the environmental impact of the food system, which includes establishing targets. Six steps are proposed to improve governance on food system environmental risks, including greening agricultural policies and monitoring environmental performance indicators and measurements.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
<p>Canadian Federation of Agriculture. Towards a national food strategy: a framework for securing the future of food. Ottawa: 2012.</p>	<p>Expert report: National Food Strategy developed through stakeholder consultation with producers, processors, distributors, retailers, consumers and other key players in the food system.</p>	<p>The National Food Strategy promotes nine strategic objectives and subsequent outcomes to ensure an environmentally, socially and economically sustainable food system that includes conserving land, air, soil and water, increasing biodiversity, researching renewable energy sources and employing resilient practices.</p>
<p>MacRae R, Cuddeford V, Young SB, Matsubuchi-Shaw M. The food system and climate change: an exploration of emerging strategies to reduce GHG emissions in Canada. <i>Agroecol Sust Food</i>. 2013;37(8):933-63.</p>	<p>Peer-reviewed publication: analysis of 20 cases that use life cycle assessment modelling to determine change in emissions from baseline to new scenarios. Cases included localization, modal shifts, packaging, production, cooling and refrigeration, and consumption.</p>	<p>Greenhouse gas emissions will not be reduced enough through localization, transportation and modal shifts; production practices also need to change. Organic productions shows the greatest reduction in emissions, but can be difficult to implement. Changes to the production, processing and consumption of vegetables and fruit, and animals products could greatly reduce greenhouse gas emissions. These changes including shifting vegetable and fruit transportation to rail, improving efficiency of cooling and refrigeration systems, and reducing waste. Reducing the population's consumption of animal products and switching to fish could also reduce emissions.</p>
<p>Eilers W, MacKay R, Graham L, Lefebvre A. Environmental sustainability of Canadian agriculture. Ottawa: Agriculture and Agri-Food Canada; 2011.</p>	<p>Government report: third report card of agri-environmental performance indicators for soil, water and air qualities, farm land management, and food and beverage industries in Canada, assessing changes from 1981 to 2006.</p>	<p>Overall in Canada, improvements have been made in agricultural practices. Between 1981 and 2006, Ontario improved soil cover and risk of erosion on agricultural farm land. Farm land declined in this period and land use intensified; conventional tillage decreased and was replaced with conservation tillage. However, soil organic matter decreased, ammonia emissions increased, and risks of water contamination by nitrogen and pesticides increased, indicating a continued need for change.</p>

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: LARGE OIL-BASED INPUTS ARE USED IN FOOD SYSTEMS; AN UNSUSTAINABLE PRACTICE		
Neff RA, Parker CL, Kirschenmann FL, Tinch J, Lawrence RS. Peak oil, food systems, and public health. Am J Public Health. 2011;101(9):1587-97.	Peer-reviewed publication: review of petroleum use throughout the food system, potential effects of rising oil prices, policies for food system transition and the role of public health in this transition.	The food system heavily relies on oil throughout production, processing, transportation, customer use and waste elimination. Oil scarcity can increase prices for producing and purchasing food and reduce producer livelihoods if food prices remain stagnant, potentially increasing food insecurity in the population. Policies to ease food system transition in the face of rising oil prices are considered.

ACTION AREA 3.12:

Increased sustainability & safety of fisheries

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: ENVIRONMENTALLY SUSTAINABLE FISHING PRACTICES NEED TO BE IMPLEMENTED		
Le Vallee JC, Howard A. Strengthening Canada's commercial fisheries and aquaculture: from fin to fork. Ottawa: Conference Board of Canada; 2013.	Agency report: qualitative and quantitative methods used, including literature review, data review, analysis of data and interviews, to examine aquaculture and fisheries environmental, governance and management options in Canada.	Fisheries and aquaculture have the potential to grow in Canada. For this to occur, stakeholders need to ensure that economic and environmental sustainability are realized. Protective policies, eco certification and fishery management could assist in improving the system. Eight steps are recommended for improving Canadian aquaculture and fisheries.
Ontario Ministry of Natural Resources. Management of fish in Ontario: background report supporting Ontario's provincial fish strategy [Draft]. Toronto: Fisheries Policy Section, MNR; 2014.	Government report: review of literature to describe fishing in Ontario, including characteristics of communities and roles of the ministry in protecting and supporting fishing.	Communities in regions across Ontario differ in their strengths and barriers surrounding fishing. Tools have been implemented to manage fishing in the province to allow for recreational use and fish for communities. Supporting ecosystem health through habitat protection, rehabilitation and planning are emphasized.
Ontario Ministry of Natural Resources and Forestry. Ontario's provincial fish strategy: fish for the future. Peterborough: 2015.	Government report: strategy to improve conservation and management opportunities of fishing in Ontario through case analysis.	This report proposes five main goals for increasing management of fisheries, including supporting healthy fish communities, sustainable fisheries, fish management programs, research on policy and management, and engaging stakeholders and partners.

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: THE HEALTH OF WATERWAYS IS ESSENTIAL FOR SUSTAINABILITY OF FRESHWATER FISHERIES IN ONTARIO		
EcoJustice. Legal backgrounder: fisheries act. Toronto: EcoJustice, 2013.	Expert report: discussion of changes to the Fisheries Act under omni-bus bill of 2012 and implications for fishery safety.	The omni-bus bill of 2012 reduced protection of waterways and fisheries from environmental damages throughout Canada, increasing external threats.

ACTION AREA 3.13:

Improved management of forest & freshwater food systems to provide a sustainable source of food

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: MANAGEMENT OF FOREST AND FRESHWATER FOOD SYSTEMS CONTRIBUTES TO INCREASED FOOD SECURITY AND ECONOMIC DEVELOPMENT OF COMMUNITIES		
Boulet A, Boan J, Burkhardt R, Palmer L. Beyond the fields: the value of forest and freshwater foods in Northern Ontario. Thunder Bay: Ontario Nature; 2013.	Expert report: review of literature on forest and freshwater food systems in northern Ontario and how they contribute to well-being of communities.	Seven recommendations were provided to improve the health and sustainability of forest and freshwater food systems, and ensure ecological and economic success for the ecosystems and communities that reside within them.
EcoJustice. Legal backgrounder: fisheries act. Toronto: EcoJustice; 2013.	Expert report: discussion of changes to the Fisheries Act under omni-bus bill of 2012 and implications for fishery safety.	The omni-bus bill of 2012 reduced protection of waterways and fisheries from environmental damages throughout Canada, increasing external threats.
True North Community Co-operative, Ontario Nature, Environment North. Backgrounder on forest and fresh water foods. Toronto: Sustain Ontario; 2012.	Expert report: review of issues affecting forest and freshwater food systems.	Forest and freshwater food systems provide economic, health, cultural, ecosystem and environmental benefits; however these food systems are threatened by pollution, habitat fragmentation and limited land use planning.
Ontario Food and Nutrition Strategy Design Team. Ontario food and nutrition strategy: First Nations on-reserve discussion report. Toronto: 2013.	Consensus report: community discussion on Ontario Food and Nutrition Strategy with 17 participants living on First Nations reserves and in remote and northern communities to determine challenges and opportunities for relevancy to First Nations communities.	Participants identified the need for community-based and community-driven food strategies that promote, protect and use traditional food systems. Environmental stewardship is important to address because pollution, mining and resource extraction impact environmental quality, which is relied on for hunting and fishing.

ACTION AREA 3.14:

Increased recognition of & rewards for ecosystem goods & services provided by the food chain

REFERENCE	TYPE OF STUDY	KEY FINDINGS RELATED TO MAIN PREMISE
MAIN PREMISE: ECOLOGICAL GOODS AND SERVICES PROMOTE ENVIRONMENTAL HEALTH AND FOOD SYSTEMS RESILIENCE, AND RECOGNITION AND INCENTIVES TO SUPPORT THESE ACTIVITIES ARE REQUIRED		
Eco Resources, International Institute for Sustainable Development [IISD]. Analysis of environmental goods and services policy options fostering adaptation of Canadian farmers to climate change and development of a decision-making tool. Ottawa: The Canadian Agri-Food Policy Institute; 2010.	Expert report: review of literature on ecosystem goods and services, beneficial management practices that produce ecosystem goods and services, and North American climate change policies and future policy options that support beneficial management practices. A payment decision framework under Canadian contexts was also developed and tested.	This report identifies 28 ecological goods and services, and best management practices for ecological goods and services production. These practices are compared to related current and future Canadian and American policies.
Royer A, Gouin DM. Potential contribution of payments for ecological goods and services to farm income. Ottawa: Agriculture and Agri-food Canada; 2007.	Government report: evaluation of ecological agricultural programs in Switzerland, France and Belgium, and their impacts on farm income.	Desired environmental outcomes of the programs were most often achieved when more farms were committed to meeting program requirements. Payments for programs had the most impact on farm income in Switzerland (14%), likely because Switzerland's agriculture sector is not focused on globalized trade.



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