



## A Discussion Primer

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- CK Student Nutrition Program
- Erie St. Clair LHIN
- Ontario Commercial Fisheries Association
- Local Integration Partnership
- United Way of CK
- CK Community Health Centre
- Dresden Foodland
- CK Senior Advisory Committee
- Prosperity Roundtable
- Kent Federation of Agriculture
- CK Food Policy Council
- Salvation Army of CK

Municipality of CK Departments: Economic Development, Planning Services, Public Libraries, Transportation, Employment and Social Services, Housing, Public Health, Tourism and Culture, and Waste Management.

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# Background

Food is connected to the health, culture, environment, and economy of our people and our communities. How we produce, distribute, and consume food forms an important connection to human health and our social and environmental systems.

Chatham-Kent has strong roots in agriculture, alongside increasing public interest in the quality, healthiness, and culture in locally sourced food. Over the past several years, there have been many food-related initiatives to support a healthy and [sustainable food system](#). Many of these activities have supported the various areas of the food system, including how food is produced, purchased, consumed, and wasted. These activities are a result of a diverse stakeholder group with invested interest in these initiatives.

In 2012, CK Public Health completed the [Let's Talk Food Community Food System Assessment](#), which was a broad consultation with community members and partners. This discussion allowed us to understand our values and beliefs around food, what is needed in the community, gather ideas on how to create a better food system in our area, identify policies, and begin the process of acting on some of the ideas that were talked about.

The recommendations from the *Let's Talk Food* consultation of **what** we should do to help address food issues in CK included the following:

- **Providing more education to increase knowledge and skills:** this includes providing cooking classes on how to prepare a nutritious meal while on a budget, providing grocery store tours to demonstrate how to buy nutritious and affordable food, and providing more education about food in schools.
- **Support and improve existing programs and infrastructure:** this includes providing more farm tours to help raise awareness among individuals regarding where their food comes from, increasing the number of students enrolled and foods offered in school nutrition programs, supporting local food banks with stocking fresh and nutritious foods, supporting more infrastructure for the local processing of foods, and improving the public transit system and neighbourhood design in CK for improved access to nutritious food outlets.
- **Promote local branding:** this includes having better promotion of the pre-existing “buy local” information and creating a local food brand.
- **Enhancing the built environment:** this includes supporting nutritious food outlets while limiting the number of [fast-food outlets](#) and having city bus routes better align with grocery store locations.
- **Supporting community groups and sectors:** this includes supporting local farmers and developing alternative models for the distribution of food to help local small businesses.
- **Advocacy:** many of the recommendations provided are related to [advocacy](#) work because they require policy changes such as improved accessibility to nutritious local foods, improvements in the school nutrition programs, and changes to food banks to stock fresh/nutritious food.

Since the community consultation, over the past several years, there have been many food system initiatives that have begun. Examples of actions include the following:

- Formation of the CK Food Policy Council
- Development of the “Grown in CK” Brand
- Launch of the Food Skills Network
- Local grocery stores placing local products and seasonal fruits and vegetables near the entrance
- Development and support of community gardens across CK
- Yearly revisions of the Buy Local Buy Fresh Map
- Development of the Let's Talk Food website to give food-related information to community members

- Implementation of the CK Gleaning Project
- Completion of a Chatham-Kent Incubator Project Survey
- Completion of a Chatham-Kent Community Food Centre Feasibility Study

With some of these activities happening, community stakeholders have expressed the need for Chatham-Kent to have an overarching plan (i.e., a food strategy) to prioritize food activities and policies to support and strengthen the local food system.

CK's Food Strategy will be a plan that integrates the actions underway, identifying future actions that support continued strengthening of the local food system. We plan to build on policies and programs that already exist, address gaps, and find new opportunities as we move forward. Key to developing the CK Food Strategy are partnerships and teamwork. We plan to develop the strategy through a community engagement process that prioritizes local input and uses research and experiences from other communities that have already completed similar work.

## WHERE ARE WE NOW?

In 2019-2020, we have worked with community stakeholders to build our knowledge base of what is happening within the CK Food System. The information collected was used to establish recommendations and prioritize areas for action.

To complete the first phase of developing the current state, we have focused on the following:

- Create a governance structure to oversee strategy development
- Define the roles and responsibilities of the lead agency and core members
- Engage with stakeholders across the food system to learn about the current state
- Develop communication resources to inform the CK Council, municipal administration, funders, residents, and consumers in Chatham-Kent of the food strategy

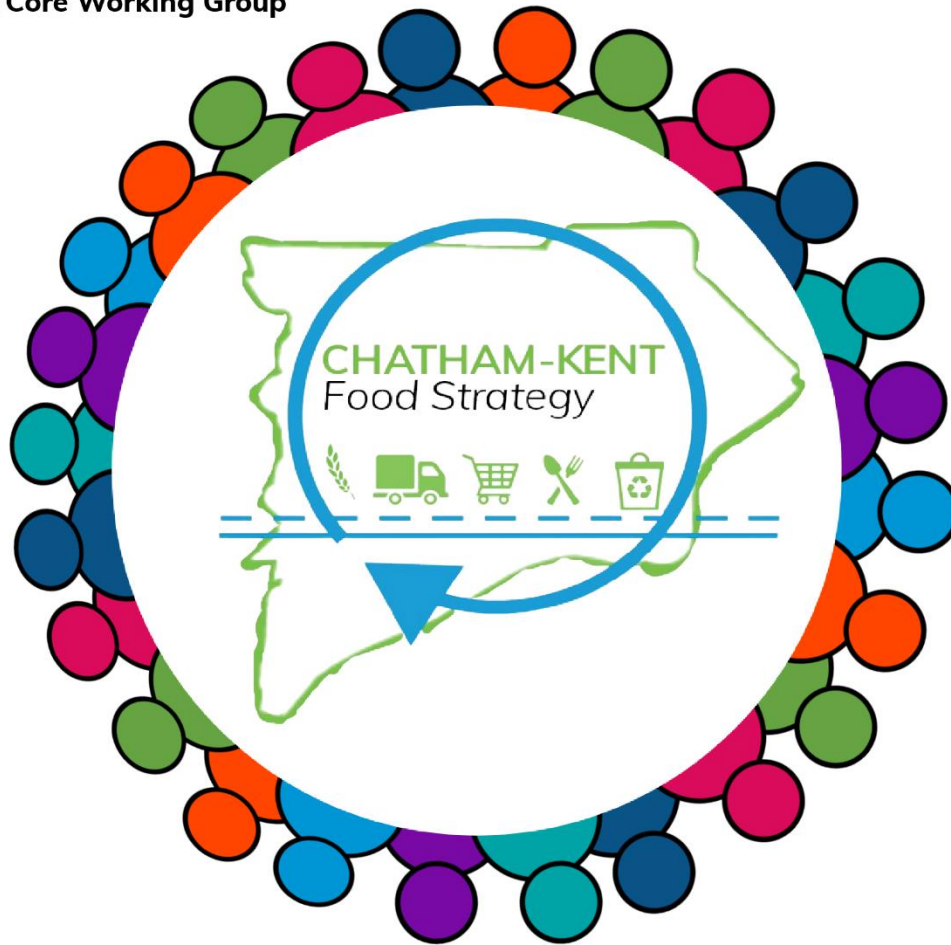
To achieve this, we have done the following:

- Established a Core Working Group (Figure 1) that has provided input on the assessment of the current state and that will assist with the development and prioritization of recommendations and action items.
- Utilized meaningful engagement practices to complete the current state, representing a variety of experiences and perspectives.
- Created a Food Strategy section on the [CK Food Policy Council](#) website.

NOTE: Words in red and underlined are defined in Section 4.

Words in blue and underline are hyperlinked to the online resource.

**Figure 1: Core Working Group**



**COMMUNITY STAKEHOLDERS**

- CK Community Health Centre
- CK Food Policy Council
- CK Student Nutrition Program
- CKAD
  
- Evans Wholesale
  
- Dresden Foodland
  
- Kent Federation of Agriculture
  
- Erie St. Clair LHIN
- Local Immigration Partnership
  
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
- Ontario Commercial Fisheries Association
  
- Prosperity Roundtable
  
- Salvation Army
- Senior Advisory Council/Age Friendly Committee
  
- United Way



**MUNICIPAL DEPARTMENTS**

- Community Attraction and Promotion
- Culture, Community Outreach
  
- Employment and Social Services
  
- Economic Development
  
- Parks and Open Spaces
- Planning
  
- Transportation
  
- Waste Management
- Workforce Planning Board

# Section 1: Community Engagement

To develop the CK Food Strategy, we engaged with community stakeholders across the food system. Our goal was to develop a strategy that connects a variety of experiences and perspectives through meaningful engagement practices. The engagement process ranged from informing, consulting, involving, and collaborating with citizens and stakeholders.

Input was gathered through the following approaches:

- A Core Working Group was established and involved throughout the strategy development. This group was established to ensure that stakeholder concerns and aspirations were consistently understood, considered, and reflected on in the strategy.
- Conducted a community survey for individuals, organizations, and stakeholders to obtain feedback on the recommendations and actions drafted by the Core Working Group.

## Core Working Group

From June to December 2019, the project team brought together members from community agencies and municipal departments to form the Core Working Group. Three large group meetings were held over a three-month period. These meetings started with a discussion of what is currently happening within the food system—from food production, processing, distribution, retail, and tourism to access, consumption, and how food is currently wasted. We heard about the community events, programs, and initiatives happening throughout our region and beyond. The Core Working Group also developed the vision, mission, and values for the CK Food System and the overarching goals.

At these larger group meetings, it was decided that it would be beneficial to break out into smaller groups to have more in-depth conversations about the recommendations and actions to achieve the goals with stakeholders that had expertise in specific areas of the food system. To do this, we broke the groups into four main areas:

1. [Food production](#), [distribution](#), and [processing](#)
2. [Food retail](#), [business](#), and [tourism](#)
3. [Food Access](#) and [literacy](#)
4. [Environmental sustainability](#) and [food waste](#)

Because there was limited representation with the core members group in areas of food retail and business, these members were given the option to join into food production, distribution, and processing or food access and literacy.

[Appendix 1](#) is an overview of the main strengths, challenges, and opportunities that emerged in each of the areas from the discussions with the core members.

As a result of these meetings, the group made a list of recommendations and actions to fulfill the goals and vision of the food strategy. [Appendix 2](#) is a communication tool that summarizes what was developed based on the work and feedback of the core members group. This two-page tool and a [video](#) was developed to help explain what a food system is and why a food strategy in Chatham-Kent is needed.

## Community Survey

As a next step, we wanted to ensure that members of the community and various stakeholders who hadn't been directly involved in the development of the food strategy were able to provide feedback. In the survey, we shared the vision, mission, values, and goals established by the core members. The recommendations and actions that align with the goals was the focus of this phase of consultation. The key questions that we wanted to answer as part of this step were the following:



1. Do the recommendations and actions resonate with you as an individual or as an organization, community group, or your business in general?
2. Is there anything in the recommendations or actions that you feel is missing? This would include suggestions that align with work you or community groups are doing or for advocacy happening or that needs to happen in our communities?
3. If these recommendations or actions were to move forward, how would this work? Is there a specific group/organization that you could see working on this? Is there a recommendation or action that you would be interested in supporting? What projects, programs, or supports would be needed to be successful?

To gather the information, we asked for feedback using the Engagement/Feedback Survey, which was developed using the CheckMarket service through Chatham-Kent Public Health. The survey was promoted through social media, radio, presentations, and community events. Communication tools were developed to help promote the online survey on the Let's Talk CK – Municipal Engagement website. Surveys were also available in paper copies that were provided to the Core Working Group members, and these were used at community events and libraries.

### Results from the Survey

Respondents provided feedback on the recommendations, the action plan and overall strengths, challenges and opportunities developed by the core-working group. The survey was available for public consultation from October to November 2020. The survey's homepage had hundreds of page views, with 35 respondents participating in the survey. The survey was designed to allow respondents the ability to answer sections of the survey, that they choose based on their area of interests and/or knowledge with the content.

Overall, the most prominent themes mentioned throughout the survey are the need for heightened public education, access to local foods, incentives/grants for programming and government assistance. Some of other themes included:

- Support for Small Scale Producers
- Support for Young/New Farming Businesses and Careers in Agriculture
- Employment in Food Sector
- Environmental Sustainability
- Organic Food Production
- Local Food Processing
- Access to Food and Food Security
- Research and Evidence Based Technology
- Tourism, Entertainment, and Recreation
- Compost/Food Waste

When respondents were asked if there was anything missing or should be adjusted to the action plan, in general, most responses had no suggested changes to the broader action items rather included the activities to meet these areas. This information was summarized and will be integrated as we begin to prioritize and identify the activities to meet the broader action items.

Respondents were asked what organizations could be involved in this work. After comparing the list to those that were a part of the core working group, the following 3 groups were not represented: Sydenham Field Naturalist, ReLeaf CK and the Conservation Authorities. It was also suggested having representation from the general public.

Respondents were asked to provide feedback on the draft recommendations. There were 2 suggested changes in recommendation 2 and 8. These suggestions were integrated into the recommendations.



## **Strengths and Limitations of the Community Survey**

### **Strengths**

Community engagement and integration of ideas has been a core element of the strategy. All actions were originally developed with a core working group of stakeholders from different areas of the food system, with this survey acting as an open call for community members to review ideas and express priorities along the way to finalization. Community participation will continuously be practiced throughout the implementation of CK's Food Strategy.

Question structure can also be considered a strength of the survey. Having responses that are opened ended as opposed to predetermined options allows respondents have freedom over their input, without the element of bias introduced through suggestions.

Survey analysis was done by practicum students with no involvement from the Food Strategy members thus far. This allowed a fresh, outside perspective on data synthesis, as well as elimination of bias towards the mention of priorities and initiatives by people involved with drafting the food strategy.

### **Limitations**

Challenges, strengths, future opportunities, and action items were all presented to survey respondents in language originally developed for public health officials and stakeholders in the food system. This may have introduced a language barrier to some survey respondents.

The survey was implemented during the COVID-19 pandemic, which has added an element of stress and/or burnout to members of the community, especially members employed in the food system due to the essential continuation of food and food related services. Low survey turnout could possibly be attributed to this factor.

Representation from the restaurant industry was low within the core working and based on demographic information, this underrepresentation extended to survey respondents. Again, this could be due to the large effect of COVID-19 on the restaurant industry as a whole. Further outreach needs to be done to include this population.

Lastly, due to the low response rate, input from the community members who participated in the survey may not be generalizable to the general population.

The full report of the community survey can be found here: [Let's Talk CK: Summary of the CK Food Strategy Community Survey.](#)

### **Future Steps of Community Engagement**

Community engagement is seen as an ongoing process, which will continue in order to carry out and achieve action items. Moving forward, we will need to employ meaningful engagement strategies within the restaurant industry to ensure their involvement is achieved.

The feedback from the community survey has provided insight as to what needs to be addressed moving forward, and will shape our final recommendations and action plan. As we move forward with our work, there was a high level of agreement among respondents that: locally grown foods need to be available for local consumption; steps need to be taken to increase public knowledge and awareness; CK is in need of a compost program; and government support in the form of incentives, grants, programs, and assistance is necessary for the successful implementation of the suggested action items.

We anticipate that the next steps in community engagement will be begin soon again! The project team has developed a webinar to update members of the core working group on the tasks completed to date and upcoming steps to get started working on the action plan.

# Section 2: Current State of the CK Food System

The purpose of this section is to provide information of what is happening in Chatham-Kent's food system. This section includes examples of community food activities and policies related to the areas of food production, processing and distribution, food purchases, retail, access, consumption, and waste. Much of the information in this section was collected from October 2019- March 2020. Due to the COVID-19 pandemic, the release of the current state was placed on hold as the project team was reassigned to other duties. The project team has contacted the key stakeholders and updates have been included where suggested. Feedback from the group is that the information continues to be relevant and will be used as a baseline to help guide the future actions. This document is a narrative that reflects the current landscape of CK's food system and will continue to evolve as the food system proceeds.

## FOOD PRODUCTION

Food production is an enormous subset of the food system. It encompasses large-scale agribusinesses, family farms, small-scale agriculture, [hobby farms](#), [urban agriculture](#), and [commercial fisheries](#).

### AGRICULTURAL FOOD PRODUCTION

Agricultural food production includes rural and urban farming and gardening practices that involve growing raw food crops (i.e., vegetables, fruit, and grains) and raising animals for meat and dairy purposes. CK has an exceptional landscape consisting of a mainly rural area for agriculture, where 90% of the land area in CK is dedicated to farming purposes. CK is home to over 2,000 farms with more than 70 different crops grown each year. In addition, 370 acres are dedicated to greenhouses, which accounts for about 9% of Ontario's total greenhouse area and makes CK a leader in the greenhouse sector. In total, CK makes up 4% of all Ontario's farms<sup>1</sup>.

CK has been very successful in the production of local food, true to the marketing phrase, "We Grow for the World." In Canada, CK is the number one producer of Brussel sprouts, cucumbers, and tomatoes. In Ontario, CK is the number one producer of green peas, quail, and field peppers and the number two producer of asparagus. Over half of the farmers in CK grow some type of vegetable, and each farmer in CK produces enough food to feed 120 people for a year<sup>1</sup>.

Not only do we rely on farming to provide most of the foods that we consume, food production is a significant contributor to the local economy. A recent weekly report released by Chatham-Kent's Economic Development Department indicated that farming is responsible for over 16,000 jobs in CK. In CK, the agricultural industry accounts for \$3 billion in economic activity annually<sup>2</sup>.

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<sup>1</sup> Chatham-Kent Agri-Development. Some remarkable stats about Chatham-Kent's Agriculture. [Internet] Available from: <http://wegrowfortheworld.com/2019/05/some-remarkable-stats-about-chatham-kent-agriculture/> Municipality of Chatham [Accessed 2019 July]

<sup>2</sup> Chatham-Kent Agri-Development. Buy Local Buy Fresh. [Internet] Available from: <http://buylocalbuyfreshchathamkent.com>. [Accessed July 2019]

There are a number of unique strengths and challenges in the area of agricultural food production. CK has many benefits, including being home to some of the richest land for growing in the country and having prime growing conditions for a variety of crops.

Despite a national and international trend of declining farms, in CK, the number of farms has remained stable (0.68% increase) compared with Ontario, which has seen a decrease in farms of 13.3% from 2006–2016<sup>3</sup>. Locally, the number of farmers has remained stable in recent years; however, Core Working Group members have expressed concern that if there is a decline in [generational farming](#), this could impact the quality and quantity of food production because knowledge and skills are not passed onto children, who would eventually farm full time.

A farm can be owned and operated by one person or a partnership (i.e., a spouse or by several siblings), where one is actively farming and the rest are silent partners. Many farms remain in the family for generations; however, children are often taking over the family farm well into adulthood because farmers on average retire later than those in other careers. Their children often reach adulthood long before their parents are considering retirement. Therefore, the sons and daughters who want to farm often need to buy into the operation or rent/buy additional farmland rather than take over the family farm immediately. When it comes time to pass the farm to the next generation, the ownership is often split between farming and non-farming members or sold, and the money is then distributed to provide a fair settlement for all the children.

The viability of farming as a sole source of livelihood for young farmers who are just starting out is a challenge. One of the biggest obstacles for young farmers to becoming farm owners is the cost associated with the purchasing of land and equipment. Succession planning is an important part of farm management. Groups such as the Kent Federation of Agriculture offer programs and other support for farmers to help with the transition of farming between generations. Programs in the community, such as [4-H](#), help to provide children and young adults with opportunities to be engaged in the agricultural community and build skills and knowledge that they can use in the future on their farms. Many farmers will also have their children work closely on the farm with them, learning while working alongside them, and gaining an appreciation for the work as they go.

Members of the Core Working Group noted that farmers face high land values, and the amount of taxes paid depends on the value of the land. On average, land values in CK increased annually by 8.83% between the years of 2010 and 2018<sup>4</sup>. The differences in land value for farming are mainly because of soil composition and its quality, which affects crop yield. For example, some areas within the municipality would have better soil for growing; therefore, the value of the land would be higher in these areas.

Farmers are farming more land for a number of reasons. Because of rising costs in farming expenses, farmers often manage more land to make an adequate income. Farmers are incurring higher costs to produce food (e.g., oil, fertilizers, water management, and electricity) and higher costs to send their products further away to be processed. Because of improvements in equipment and advances in [biotechnology](#) farmers can manage more land and have higher yields. The high cost of land, operational costs, and equipment is recognized as a barrier for young people entering farming.

In our region, working off the farm has been a common practice for some farmers and/or their spouse. Because of the growing season, employment interests, financial needs, and/or the type of crop planted (i.e., soybeans, wheat, and corn), farmers often have other forms of employment.

Many farming operations require long hours and daily work. The average net operating income for CK in 2016 was approximately \$60,000<sup>3</sup>. The Core Working Group members have identified mental health for farmers as an area for future action. A national survey led by University of Guelph revealed that stress, anxiety,

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<sup>3</sup> Ontario Ministry of Agriculture, Food and Rural Affairs. Chatham-Kent Division Agriculture Data. [Internet] Available from: [www.omafra.gov.on.ca/english/stats/county/southern\\_ontario/chatham\\_kent.xls](http://www.omafra.gov.on.ca/english/stats/county/southern_ontario/chatham_kent.xls). [Accessed June 10 2020]

<sup>4</sup> Parker, RR. Southwestern Ontario Land Value, 2018 Edition. Partner of Valco Consultants Inc.

depression, emotional exhaustion, and burnout are all higher among farmers than among other populations<sup>5</sup>. The following causes have been identified as potential factors that place farmers at a higher chance of having poor mental health: farmers are often working independently, have demanding schedules, have farm debt, have pressures to carry on family legacy, are often without extended health benefits, and have finances and crop yield that are impacted by unpredictable factors such as weather and crop value. The Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) has developed support and resources available for farmers and their families,<sup>6</sup> which is available on their website.

We have become accustomed to purchasing imported products, and this high dependence on foreign goods makes it harder for food producers to compete. Large corporations from around the world are working with local farmers to test crops to determine if these can be grown in our environment.

In addition to the economic benefits of local food production, the environmental and social benefits are important components to consider. Agricultural landscapes provide a number of essential functions, including air and water purification, wetland and watershed protection, wildlife habitat, recreation, and open space.

### **CLIMATE CHANGE AND AGRICULTURE FOOD PRODUCTION**

During the consultation, there was a lot of discussion on climate change and its impact on our food system. It is well-known that weather patterns such as droughts, heatwaves, and wet seasons can have major impacts on primary agricultural production. Years with ideal weather conditions are much more productive from a yield standpoint than years with poor weather conditions, even if everything else remains the same. Although there are always exceptions to the rule, the weather pattern variations in Chatham-Kent have, for the most part, remained within a relatively constant range that farmers could count on and plan around.

However, the recent local historical climate record, local experiences (such as the spring of 2019 which was uncharacteristically wet and led to mass delays in planting crops across Southwestern Ontario), and the ever-evolving internationally accepted climate science suggests that global changes in the earth's climate have already begun and will continue to impact local weather patterns and our ability to grow food in CK.

Climate data from the most recent Climate Change Assessment Report published by the Inter-Governmental Panel on Climate Change in 2014 was statistically downscaled to the context of Chatham-Kent. However, it is projected that by the 2080s, we will experience the following<sup>7</sup>:

- Annual average temperatures will rise by 5.8 °C
- The number of days where the temperature meets or exceeds 30 °C will quintuple
- The number of frost days will drop by more than half
- The frost-free season will extend another 2.5 months
- Annual average precipitation (all forms) will increase by 127 mm
- Falls, winters, and springs will be wetter; summers will be dryer

Chatham-Kent's climate is projected to get hotter throughout the year and wetter during the fall, winter, and spring but comparably dryer in the summer. This will create challenges for existing agricultural production systems on the one hand, but it may also open up potential opportunities for new crops and processes on the other hand.

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<sup>5</sup> Standing Committee on Agriculture and Food Agri. Mental Health: A Priority for Our Farmers. House of Commons. May 2019 [Internet] Available from: <https://www.ourcommons.ca/DocumentViewer/en/42-1/AGRI/report-16>. [Assessed December 2019]

<sup>6</sup>Ontario Ministry of Agriculture, Food and Rural Affairs. Mental Health for Farmers – First Aid Kit. June 2020 [Internet] Available from: <http://www.omafra.gov.on.ca/english/about/mental-health.htm>. [Accessed November 2019]

<sup>7</sup> Pachauri RK, Allen MR, Barros VR, Broome J, Cramer W, Christ R. et al., (2014) Climate change 2014 synthesis report. Contribution of working groups I, II, and III to the fifth assessment report of the Intergovernmental Panel on Climate Change. IPCC.

Some of the changes listed above could negatively impact the existing agricultural industry in Chatham-Kent in the following ways:

- Wet springs: delays in crop planting; increases in soil erosion and nutrient runoff
- Hot summers: can reduce plant growth; can kill certain plant species; can increase pests (insects); can make livestock sick/die
- Drought: reduces crop yield; can cause crop failure; can be a livestock stressor
- More precipitation: leads to more crop diseases (i.e., mould); can lead to crop flooding; drainage system overload/failure; can be a livestock stressor
- Frost-free days and longer growing season: may lead to the migration of vector-borne diseases and pests from warmer climates

Some of the changes listed above could positively impact Chatham-Kent's agricultural industry in the following ways:

- Wetter climate: may generate opportunities for new crops (i.e., rice)
- Hotter climate: may generate opportunities for new crops (i.e., hazelnuts)
- Hot summers: may increase the demand for greenhouse-grown produce because of challenges associated with growing food outdoors
- Frost-free days: may lead to opportunities for new tropical, subtropical, or Mediterranean crops (i.e., lavender)
- Drought: may present an opportunity to employ CK's drainage system to store irrigation water

To ensure that Chatham-Kent's food system can thrive now and in the future, the community will have to be proactive in considering, planning for, and managing the impacts of climate change on the agricultural industry so that negative impacts are reduced and any advantages are identified and capitalized on.

## COMMERCIAL FISHING

Fresh water commercial fisheries are another important aspect of the local food system in CK. Fish are not always considered when we think of the local food system; however, fish are a critical economic driver and cultural identifier for our communities. Wheatley is home to the world's largest fresh water commercial fishing port. The main fish species at the Wheatley dock include the following: Yellow Perch, Pickerel (Walleye), White Bass, White Perch, and Smelt.

The commercial fishing sector also has a large economic impact on CK. Chatham-Kent is home to 75 commercial fishing licences and several fish processing facilities, including A & A Marine, Presteve Foods, John O' Foods, Great Lake Foods, Taylor Fish Company, and Loop Fisheries.

Ontario is known for the finest quality of freshwater fish worldwide. According to the Ontario Commercial Fisheries Association (OCFA),<sup>8</sup> most of the fish caught are exported to the United States and Europe. Locally in CK, Ontario's commercial fishing industry provides nutritious, superb quality fish for restaurants, grocery stores, as well as local and dockside outlets.

A focus for the commercial fishery industry is to ensure a responsible, competitive, and sustainable commercial fishery. This philosophy is supported by the recent Marine Stewardship Council (MSC) Certification of the Yellow Perch and Walleye fisheries on Lake Erie. MSC is the gold standard—with the world's strongest and best practice guidelines. Following these guidelines, a "wild-caught" fishery maintains sustainable fish stocks, minimizes environmental impacts, and is effectively managed. Yellow Perch and Walleye on Lake Erie are the first large-scale freshwater fisheries in the world to receive MSC certification. This is a major accomplishment, verifying that the fishery is well managed and sustainable.

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<sup>8</sup> Ontario Commercial Fisheries' Association. *Ontario's Commercial Fishing Industry*. [Internet] Available from: <http://www.ocfa.ca/fisheries-industry>. [Assessed June 2020]

Management of the fishery is based on a quota system introduced in 1984 for quota-designated species. These species require special harvest limits to ensure the long-time viability of the population. Quotas are a modern form of fishery regulation, governing the size and quantity of a fish that may be taken, and it is a form of resource rental, allowing the licence holder access to a share of the resource. This system allows for close regulation of commercial harvests. Quotas are allocated and administered in Ontario by the Ministry of Natural Resources & Forestry. For Lake Erie, annual quotas are determined by management and scientific personnel, representing both the province and states bordering Lake Erie; together, they analyze data derived from various assessment and sampling programs.

Similar to other food production systems in CK, a major challenge facing the industry is finding and keeping workers. Shortages include deck hands (labourers), fishing tug captains, and fish processing plant workers (skilled and unskilled). Programs such as the Seasonal Agricultural Worker Program benefits the agricultural industry, but unfortunately, it does not apply to the commercial fishing industry.

Fish is a form of protein that competes head-to-head with other proteins, such as beef, chicken, and pork. The commercial fisheries works with the Ministry of Natural Resources and Forestry (MNR) on quotas and licensing. However, there is very little attention given to the industry on the “food side” by the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA). For example, many programs available to other food production systems are not available to the commercial fishing industry.

The industry is concerned about algae blooms and its threat to ecosystems, health, drinking water supplies, fisheries, recreation, tourism, and property values. The major threats to the commercial fishing industry are related to reduced dissolved oxygen levels from decomposing algal blooms; undermining native fish populations; public perceptions that fish from the lake are not safe to eat; long-term implications for changes to Lake Erie’s rich and diverse fish community; and threats to communities that depend on the commercial fishery for their livelihoods. Coordinated efforts to address algal blooms are important to preserve this.

Invasive species pose another challenge for the industry, and Asian Carp are one of the biggest threats to the Great Lakes. If Asian Carps become established in Ontario waters, they could eat the food supply that native fish depend on and crowd native species out of their habitat. This would result in a decline of native species and have a major impact on the commercial fishing industry.

The commercial fishing industry has been a part of the history, culture, and economy of our part of the world for a very long time. There was a recognizable commercial fishery before Europeans colonized what we now call Ontario. Fishing were one of the first industries established in new communities that sprang up as Europeans pushed up the Great Lakes in the early years of Canada’s founding. Chatham-Kent is home to one of the largest commercial fisheries on the Great Lakes, with ports in both Wheatley and Eriau. In 2018, these two ports accounted for 42% of all of the commercial fish landed in the province and 45% of the value, making it a significant part of the provincial commercial fishing industry and an important contributor to the economy of CK.



## URBAN AGRICULTURE

Most of the food grown in CK is on farms in rural areas; however, food production in urban areas can be a thriving part of urban development. In Chatham-Kent, urban agriculture primarily consists of urban agriculture, which is often referred to as community gardens. More common in other urban centres such as Toronto are green rooftops for gardens.

According to the Chatham-Kent Public Health Unit's Policy for CK Community Gardens, a community garden is defined as follows:

*A plot of land which is used to produce food, native and ornamental plants, edible berries, and food perennials. It is an area of publicly or privately owned land, rooftop, or other space managed and maintained by individuals, and/or organizations, to grow and harvest food crops and/or non-food ornamental crops, such as flowers for personal or group use, consumption, or donation. Community gardens may be divided into separate plots or may be farmed collectively and may include common areas maintained and used by community garden members<sup>9</sup>.*

There are many benefits to participating in community gardens, such as the following:

- Giving access to fresh produce
- Promoting physical activity
- Social interaction among participants
- Creating vibrant green space
- Decreasing the distance food travels
- Improving individual/household food access
- Providing skills individuals with ways to grow food for themselves
- Improving community biodiversity and pollinator habitats
- Utilizing compost, which will reduce town and city waste management costs by diverting the quantities of organics for the conversion of soil

Community gardens have gained strong interest in Chatham-Kent over the last 15 years. Currently, there are nine community gardens and 24 school gardens throughout the municipality. CK Public Health has the Community Gardens Policy that supports the development and maintenance of community gardens in locations throughout the municipality.

All community gardens are freely available to anyone who is interested in growing their own produce in individual or small group plots. Produce is for personal consumption or can be shared with friends and family or donated to community groups. Currently, CK municipal regulations do not permit participants in community gardens to sell their produce because the land is donated and does not charge community members to have a plot. If an organization or individual owns land and wants to grow and sell food, then this is different from the community gardens program, and they could apply for their own land use permits to allow them to do this. For example, Hamilton recently incorporated zoning by-laws into its Urban Official Plan Amendment so that urban growers can pursue larger, urban agriculture operations within the city<sup>10</sup>.

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<sup>9</sup> Chatham-Kent Public Health Unit. Chatham-Kent Community Garden Policy, 2014. Chatham, ON: Chatham-Kent Public Health Unit.

<sup>10</sup> City of Hamilton Ontario. Hamilton Food Strategy: Healthy Sustainable and Just Food for All. 2020 [Internet] Available from: <https://www.hamilton.ca/city-initiatives/strategies-actions/hamilton-food>. [Assessed June 2020]

## Highlighted Programs and Activities

The below programs and activities best fit under food production; however, many of these programs contribute to other sections of the food system as well.

- **Community Gardens**. CK Community Gardens are for groups and individuals who wish to grow and maintain their own plants in the community. In general, community gardens offer fresh produce such as fruits and vegetables for individual consumption, educational experiences by giving hands on learning, and provide produce for emergency food services. These gardens also provide other benefits for community members, including opportunities for physical activity and stress relief. CK provides access to land throughout the municipality for nine community gardens and 24 school gardens.
- **Seed-Lending Program** is offered through the CK libraries and provides community members with the chance to grow produce in their gardens. The program provides community members with increased access to fresh and affordable foods in their own backyards. Therefore, people who visit a local library can borrow seeds from the library and are then encouraged to save the seeds they grow from produce at the end of the growing season, returning these to the library.
- **University of Guelph Ridgetown Campus** has been a key research facility in the community, delivering research for over 85 years to Ontario's agricultural stakeholders. The campus was first established as a demonstration farm to address agricultural production in Southwestern Ontario. Since then, the campus has been broadened, and researchers are working in key disciplines targeting specific areas, including production systems, soil and water management, economics and farm policy, plant breeding and genetics, animal nutrition and genetics, and integrated pest management.
- **Alternative Land Use Service Program** is currently operating in CK via a partnership with the Lower Thames Valley Conservation Authority (LTVCA). ALUS is a non-regulatory, voluntary, and incentive-based approach to stewardship that provides agricultural producers with the funding to implement ecosystem projects that produce clean air, water, sequester carbon, and enhance local biodiversity. Through the program, producers can design their project and are provided with a payment to offset a portion of the installation costs. Any acres that are enrolled for the ecosystem services are also compensated on an annual basis. Eligible projects include the following: tree planting, native tall grass prairie restoration, wetland restoration, riparian area restoration, and so forth.
- **Chatham-Kent Agricultural Development Committee (CKAD)** is a committee comprised of individual residents of CK representing various agricultural sectors. They work to create a climate to enhance CK as a world-leading agricultural community. Their goals are to assess, identify, and facilitate a development strategy for agricultural-related opportunities, to identify and promote the availability of funding/investment opportunities for agricultural projects, and to support agricultural education and research programs within CK. The group has coined the tagline "We Grow 4 the World" to promote CK's agriculture and provide links on their site to related information, articles, and spotlights for local agriculture businesses.

## FOOD PROCESSING AND DISTRIBUTION

Food produced by farmers and caught in fisheries are sent to food processing plants where the food processor transforms the food into a consumer-ready product and then distributes the item to retailers who purchase the processed products.

With the emergence of large corporate food companies and the increased use of central processing, the food produced in CK leaves the region to be processed before it is centrally distributed across the province, country, and globe. There are many reasons why local food availability is limited at the local level, including existing contracts, policies, and regulations that dictate the accessibility of these products locally.

## PROCESSING

Ontario's food and beverage processors purchase about 65% of the food produced on the province's farms. In the global food system, farmers receive little of the profits associated with the retail cost of food. It is through the processing and distribution steps that the most value is "added" to food, increasing profit margins beyond raw, unprocessed food. Transportation, packaging, advertising, and other energy and labour costs all contribute to the cost of food by the time it reaches consumers.<sup>10</sup> Processing is a major driver for determining what individuals will eat because it transforms raw produce into forms that people can eat. For example, the processing of fish refers to the removal of fish bones and their internal organs, preparing the fish for sale at the supermarket.

CK is home to approximately 40 different processing centres located across the municipality.<sup>11</sup> These processors include beverages, confectionary, fish, fruits and vegetables, meat, perishable prepared foods, bakeries, snacks, and ingredients. CK is home to six of the 16 fish processors in Ontario, and Lake Erie's fish processing sector accounts for close to 800 direct and indirect jobs that produce an economic impact of over \$194 million<sup>12</sup>.

Livestock for local retail are commonly sent to abattoir(s) within CK, such as Highgate, or to the surrounding regions. Larger scale operations for livestock send out livestock for central processing and distribution.

In addition to the fishing sector in CK, the agribusiness for food and beverage manufacturing in CK employs approximately 475 individuals<sup>12</sup>. The variety of processors demonstrates the diversity of knowledge in CK and the opportunities for other processors to learn and open their businesses in CK.

Many farmers have contracts with food processors, directing where the local products are sent. Farmers grow large quantities, and what they grow is often sold before it is planted. The farmer grows to the specification required (size, types, ripeness, etc.) that the processor wants. The products are delivered by the truckload. The amount of food produced are large quantities, not the smaller amounts that local food distribution would require.

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<sup>11</sup>Chatham-Kent Agriculture Development. Chatham-Kent Food Processors. 2020 [Internet] Available from: <http://wegrowfortheworld.com/processors-in-chatham-kent>. [Accessed June 10, 2020]

<sup>12</sup> Chatham-Kent Agriculture Development. CK's Lake Erie Fishery is Enormous. 2020 [Internet] Available from: <http://wegrowfortheworld.com/2018/08/c-ks-lake-erie-fishery-is-enormous>. [Accessed June 10, 2020]

## DISTRIBUTION

Most food produced in CK is processed and distributed to the national and international market. Much of the food grown locally is contracted with a food processor. In general, particularly in winter, most fruits and vegetables are transported at least 2,500 km from their point of origin to Canadian homes<sup>13</sup>.

With more and more consumers seeking local foods, the demand for local product is increasing. Consumers are potentially aware of the items produced locally; however, there is a lack of awareness of the contractual commitments and growing practices needed to meet global food demand.

A local food hub is defined as a business or organization that manages the distribution and marketing of food products from local producers to help strengthen their ability to satisfy wholesale, retail, and institutional demand<sup>14</sup>. A recent consultation, in 2017 with community partners explored the potential for a food hub where food producers can bring their product, which would then be purchased by retail establishments and consumers. CK has a strong network of food producers, developing a distribution system between farmers and local businesses, and exploring the feasibility for a regional food hub would allow small- and medium-sized producers to bring resources together and provide larger, more predictable quantities of produce.

A survey conducted by Chatham-Kent Tourism in 2015 surveyed local producers, restaurants, and serving facilities. When participants were asked if they believe a food hub would benefit local farmers and consumers, 100% answered yes. The local restaurant owners surveyed identified accessibility of local products, an inadequate distribution system for local food, and the cost of local products as barriers.<sup>15</sup>

One of the biggest barriers for both production and processing that has been identified is the impact of government. This applies to the rules, regulations, influences, and inconsistencies between provincial and federal requirements. This creates frustration, confusion, and duplication for local producers and processors.

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<sup>13</sup> Development and Peace 2010-2018. How many kilometres do the foods in an average Canadian meal travel to get to your table? [Internet] Available from: <https://www.devp.org/en/sharelent/solidarity-calendar/food-transportation>. [Accessed June 2020]

<sup>14</sup> Murray, A & McGeachy Schultz, L. Chatham-Kent Community Food Strategy Making the Case. Chatham-Kent Public Health, 2017.

<sup>15</sup> Houle, C. SWOTC/Chatham-Kent Tourism Report Chatham-Kent Culinary Project and Recommendations. Municipality of Chatham-Kent, 2015.

### Highlighted Programs and Activities:

- CK is home to one **abattoir**, where farmers can take the animals they have raised to be processed for meat. In addition to local abattoirs, there are other businesses, such as Roesch meats, Dresden Meat Packers, Country Fresh (Tilbury), and Schinkels, that only process and sell meat.
- **Processing plants** are businesses that receive local or regional produce and process it into another edible form. CK is home to a number of processors, including ConAgra Foods and The Pickle Station. ConAgra Foods is a tomato processing plant that produces Hunts and Aylmer tomato products. This includes a signature Hunt's series that features only CK tomatoes that are canned in CK. The Pickle Station is a vegetable processing business that specializes in cucumbers and peppers grown within CK, and many of their products can be located in stores across CK.

## BUYING & SELLING

Food buying and selling refers to the buying, selling, and marketing of fruits, vegetables, and other processed items to grocery stores, restaurants, convenience stores, or direct to consumers through farm markets and farm stands.

For the purpose of the CK Food Strategy, this area of the food system refers to the buying and selling practices that support local production, processing, and distribution. Generally, local food refers to food grown and processed in and around the CK region. Food grown in Southwestern Ontario is “regional,” and food grown in other areas of Ontario referred to as Ontario.

### **Local Food Availability**

With the emergence of large corporate food companies with central processing and distribution over the past few decades, most food grown in CK leaves the region to be processed or sold and then distributed across the province, country, and globe.

The current food structure presents challenges for consumers, retailers, and businesses who want to buy and sell local produce. For example, farmers have contracts with food processors or direct-to-food retail that have specifications around how much is needed, size, quality, and so forth. Food processors have contracts with food retailers that require specific product quantities, qualities, prices, and so forth. Because these contracts provide farmers and processors a guaranteed market and price for product, food is often distributed and processed out of the CK area. As a result, over the past few decades, there has been loss of local infrastructure to buy and sell local foods.

In 2012, CK Public Health staff visited supermarkets, convenience stores, farmers’ markets, and roadside fruit and vegetable stands in CK to collect information on fresh produce availability, prices, and place of origin. The survey included 32 fruits and vegetables locally grown in July and August. A diverse range of supermarkets were surveyed, including large discount chains, independent grocers, and others. The staff also visited a small number of convenience stores in areas with a below average density of supermarkets. One of the most alarming findings from this study was the lack of CK produce in supermarkets. Among the nearly 600 food items that were recorded across the 10 surveyed supermarkets, less than 2% were grown in CK. This was a surprising statistic because of the strong agriculture sector and because the survey took place during the peak growing season. The absence of local produce was not because of a limited amount of produce grown in CK but because the local supply is not accessible<sup>16</sup>.

Currently, farmers markets are held in Chatham, Ridgetown, and Wallaceburg during the spring, summer and fall. Markets have local items for sale from a variety of producers. In addition, farm stands are located across CK and offer daily fresh local produce, baked goods, and other local products. The Buy Local Buy Fresh Map features local products available at participating farm stands and food outlets. Still, the Core Working Group members identified a number of challenges related to the farm stands and markets, including the coordination of the mobile markets or produce stands and the lack of a guaranteed income for farmers. The group discussed ways to overcome some of these issues by encouraging local businesses or restaurants to have food stands outside of their business, giving incentives for both business and people buying from the markets.

### **Local Food Identification**

In the [Let’s Talk Food Report](#), the respondents identified the need to have a local branding logo to identify local foods easily. Based on this feedback, the slogan *Grown in CK* was developed in partnership with several community stakeholders and Municipal department. *Grown in CK* is a branding initiative to increase awareness and market local foods in retail, grocery stores, and restaurants. The *Grown in CK* brand was developed to be used by farmers, producers, or any business people who would like to promote CK agricultural

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<sup>16</sup> Cook, B & Mah, C. Summary and Analysis of the Chatham-Kent Food System Assessment. Chatham-Kent Public Health, 2015.



product both within and outside of CK. The goal is to help people identify where their food comes from by providing a recognizable logo that they can use to buy locally grown foods. During consultation, members of the Core Working Group thought there was a lack of public awareness of the *Grown in CK* branding.

### **Local Food Pricing**

In the supermarket survey, in most instances, locally grown fruits and vegetables from markets and stands were priced competitively compared with the supermarket when looking at the average of the 10 surveyed supermarkets.

Many inputs go into the food system, which affects profit margins and pricing. For this area of the food system, the related costs are for retail space, marketing, and wages for employees.

### **Local Procurement Programs**

Another identified strategy to create a market for local foods is to invest in local food procurement policies, which can help local agriculture by securing a larger scale market. The Broader Public Sector (BPS), which includes childcare facilities, schools, hospitals, long-term care sites, and other publicly funded sites such as recreation centres, theatres, and convention centres, plays a significant role in the food economy and can have dramatic buying power. For example, the Ontario health care system serves an estimated 115,000,000 meals to patients every year, with the value of the food in all of those meals estimated at over \$ 285,000,000<sup>17</sup>. Adopting local food procurement policy and shifting 10% of food purchases to locally grown and processed would create a viable market for farmers and processors.

CK Public Health has been working with food distributors to source local produce as part of a farm to childcare and school program to promote purchasing seasonal produce into their sites' menus and programs. Sourcing local food in public settings is a strategy to rebuild the infrastructure to keep local food within CK because it is a guaranteed market for food producers.

### **Food and Tourism**

Emphasizing local food as a tourist attraction and integrating it as part of our heritage and culture can impact the buying and selling practices for community residents and people visiting CK. Suggestions from the Core Working Group members include greater emphasis on local food with arts and culture and integrating local food into community festivals and events. In the study conducted by Chatham-Kent Tourism, there were several recommendations that can support a stronger, more coordinated food system for CK. For example, the report recommends aligning with existing attractions such as the Shrewsbury Maple Syrup Festival, CK Table, or the Boothill Country Jamboree. Another recommendation was to engage restaurants to feature local foods on their menus. The report also identified challenges in getting local food to the dinner table. A recommendation was to have a central distribution hub and coordinated strategy to make this all happen.

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<sup>17</sup> Wylie-Toal, B., Padanyi P, Varangu L, Kanetkar V. Local food provision in Ontario's hospitals and long term care facilities. Report for the University of Guelph/Ontario Ministry of Agriculture, Food and Rural Affairs Partnership, 2013.

## Highlighted Programs and Activities

- **The Kent Federation of Agriculture:** <https://ofa.on.ca/federations/kent> organizes self-guided farm tours to individuals who would like to visit a farm.
- **Buy Local! Buy Fresh! Chatham-Kent maps:** Currently, the maps are in the sixth edition, and free maps are available at the local libraries and municipal service centres. There are over 47 participants and sponsors listed on the map, or you can check out the website at: [www.buylocalbuyfreshchathamkent.com](http://www.buylocalbuyfreshchathamkent.com)
- **Direct to consumer: Produce boxes:** CK currently has three garden box programs where locally grown produce is delivered weekly to participating households.
- **Grown in CK:** <https://wegrowfortheworld.com> CK has a “Grown in CK” brand that can be used by farmers, producers, and businesses to help promote CK agricultural products.
- **Meal and delivery services:** CK has nine different meal and grocery delivery services where people can receive food at home in the form of groceries or prepared food.
- **Nutritious Food Basket:** Data are collected yearly on foods from grocery stores to help monitor the cost of eating nutritious food each year.
- **The Municipality of CK supports local food procurement programs:** The CK Public Health and Early Years and Childcare department is working with licensed childcare centres to bring more local foods into the centres. Staff are working with childcare centres to create a distribution of local produce into their centres.

## FOOD ACCESS AND CONSUMPTION

Food access refers to where food is purchased and provided, and food consumption refers to where and how food is eaten (home, restaurants, or other locations). Many factors influence an individual's food access and consumption, such as physical and economic access to food, housing, social supports, food skills, culture, and access to land for hunting and gathering. Food choices and dietary practices also impact the environment, economy, and health.

Canada's Dietary Guidelines (updated in 2019)<sup>18</sup> make an important contribution to the nutritional health of Canadians. These guidelines provide direction, ranging from policy makers and government institutions to families and individuals to make informed eating choices based on the most current evidence. The main objective of these guidelines is to promote overall health and wellbeing and support improvement to the Canadian food environment. These guidelines emphasize that dietary behaviours are not only about what we eat, but where, why, when, and how we consume foods.

### **Specific Guidelines Include:**

**Guideline one:** Nutritious foods are the foundation for healthy eating; this section includes the following key points:

- Vegetables, fruit, whole grains, and protein foods should be consumed regularly. Among protein foods, people should consume plant-based more often.
- Foods that contain mostly unsaturated fat should replace foods that contain mostly saturated fat.
- Water should be the beverage of choice.

**Guideline two:** Processed or prepared foods and beverages that contribute to excess sodium, free sugars, or saturated fat undermine healthy eating and should not be consumed regularly. This section includes the following key points:

- Sugary drinks and confectionaries should not be consumed regularly.
- Sugar substitutes do not need to be consumed to reduce the intake of free sugars.
- Foods and beverages offered in publicly funded institutions should align with Canada's Dietary Guidelines.
- There are health risks associated with alcohol consumption.

**Guideline three:** Food skills are needed to navigate the complex food environment and support healthy eating; this section includes the following key points:

- Cooking and food preparation using nutritious food should be promoted as a practical way to support healthy eating.
- Food labels should be promoted as a tool to help Canadians make informed food choices.

### **The Guidelines Also Include Two Main Recommendations:**

1. Healthy eating is more than the foods you eat. It is also about where, when, why, and how you eat.
2. Make it a habit to eat a variety of healthy foods by focusing on plenty of vegetables and fruits, whole grain foods, protein foods, and water. The recommendations include using food labels and an awareness that food marketing influences food choices.

**In this section, we further explored factors that influence our food choices within the CK context.**

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<sup>18</sup> Health Canada. Canada's Dietary Guidelines. 2019 [Internet] Available from: <https://food-guide.canada.ca/en/guidelines>. [Accessed July 2020]

## **Community Food Security**

Community food security is when all community residents obtain a safe, culturally appropriate, and nutritious diet through a sustainable food system that maximizes community self-reliance, social justice, and equal access for everyone<sup>19 20 21</sup>. It addresses issues in the economic, environmental and social aspects of the food system, and thus promotes adequate incomes for consumers and producers; local and diverse food production; environmental sustainability; protection of local agricultural lands and fish habitat; widespread access to healthy food; and food-based community economic development and social cohesion<sup>20</sup>.

## **Food Insecurity**

Food insecurity is encompassed within community food security. Food insecurity is defined as inadequate or insecure access to food because of financial constraints. It is a significant social and public health problem; both nationally and provincially, it impacts people throughout CK. During past community consultations and in discussions with the Core Working Group, income was identified as one of the biggest challenges to buying nutritious food in CK. Other research shows that a household's income is strongly related to food insecurity:

- In 2011, 12% of the 601 adults surveyed across CK reported some experience of food insecurity, meaning they answered yes to at least one question related to their ability to afford enough healthy food for their household. The residents reporting food insecurity were less likely to own a car, consumed a less healthy diet, and reported worse health than food secure respondents<sup>22</sup>.
- Based on a survey in 2012, over 1 in 5 did not have enough money to buy the food they need. The percentage increased to 1 in 2 (57%) in the lowest income category (<\$20,000/year)<sup>22</sup>.
- Eating less food was the most common strategy to make ends meet, which was followed by borrowing from family and friends, selling household items, and taking out loans from a payday lender.
- Those under 30 years of age were the only group to cite "borrowing money from family" as their first option and were most likely to report having used a food assistance program at some point (62%)<sup>22</sup>.
- Data from 2013/14 show that approximately 8% of Chatham-Kent households reported being either moderately or severely food insecure in that their food quality and/or quantity was compromised or their food intake was reduced because of income.<sup>23</sup> This is comparable to Ontario, with 9% of households across the province being identified as food insecure. Not surprisingly, the households that reported being most food insecure in CK were those with the lowest household income (lowest-lower middle, 34%\*)<sup>23</sup>. And the households most at-risk of food insecurity were those with lower incomes, on social assistance, headed by a female lone parent, or with children under the age of 18<sup>24</sup>.

Although community food programs can support immediate access to food, food skills, and nutrition knowledge, they do not address the root cause of food insecurity: insufficient income or poverty. Household food insecurity

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<sup>19</sup> Dietitians of Canada. Community food security position of Dietitians of Canada. [Toronto, Ont.]: Toronto, Ont. : Dietitians of Canada; 2011.

<sup>20</sup> Ontario Public Health Association. A systematic approach to community food security: a role for public health. 2002 [Internet]. Available from [https://opha.on.ca/wp-content/uploads/2020/09/2002-01\\_pp.pdf?ext=pdf](https://opha.on.ca/wp-content/uploads/2020/09/2002-01_pp.pdf?ext=pdf) [Accessed July 4 2022].

<sup>21</sup> Hamm MW, Bellows AC. Community Food Security and Nutrition Educators. *J Nutr Educ Behav*. 2003;35(1):37-43.

<sup>22</sup> Gillard, J, Richard S. Assessing the Impact of Food Environments on Healthy Eating, Obesity & Health in Chatham-Kent. Human Environments Analysis Laboratory (HEAL), UWO, 2012.

<sup>23</sup> Canadian Community Health Survey (CCHS) [2013/14], Statistics Canada, Share File, Ontario MOHLTC

<sup>24</sup> Tarasuk, V, Mitchel, A. Household food insecurity in Canada, 2017-2018 [Internet]. PROOF Food Insecurity Policy Research. 2020 [Internet] Available from: <https://proof.utoronto.ca/resources/proof-annual-reports/household-food-insecurity-in-canada-2017-2018>. [Accessed December 2019]

is tightly linked to income. As wages continue to remain stagnate<sup>25</sup> and the cost of food continues to increase, policies and social supports need to be put into place to enable Canadians to afford the recommendations set out by Health Canada in the dietary guidelines. As noted during the consultation with the Core Working Group, there is an agreement that to promote food security, the government needs to take action through income-based interventions and a federal/provincial poverty reduction strategy<sup>26</sup>.

## **Food Cost**

The cost of food varies based on seasonality and geographic location. In CK, the cost of the **Nutritious Food Basket** in 2019 was \$203.59. This amount is based on the average costs of feeding a family of four for one week. Compared with the previous year, the average weekly cost for a family of four increased by 5.05%<sup>27</sup>.

According to an annual report, the *Canadian Food Price Report* produced by Dalhousie University and University of Guelph the average Canadian family spent \$12,180 on food in 2019, which was a 3.5% increase from the previous year. Food economy researchers look at several factors to determine how food prices might change, which includes factors such as weather, trade agreements, consumer preferences, retail environment, and food processing. This model predicts food costs based on several factors; for 2019, this was predicted with 99.8% accuracy<sup>28</sup>.

Meat and seafood have seen increases in recent years, but a shift away from eating meat to a more plant-based diet is reducing the demand of meats and seafood. Canada's Food Price Report 2019, showed that the price of meat decreased by 3% and seafood by 2%. Decreases in meat and seafood are offset by rising prices in other areas, such as a 4–6% hike in the price of vegetables. Unfortunately, as consumer demand increases, this drives increases in the price. Canada's Dietary Guidelines put particular emphasis on vegetable and fruit intake. The authors of the Canadian Food Price Report stated that in Canada, we are paying a premium to eat healthy fresh vegetables because of weather conditions and supply shortages<sup>28</sup>.

## **Local Food**

In the [Let's Talk Food report](#), residents reported placing a higher value on food grown in CK, with over three quarters of respondents indicating they buy as often as they can or when it is in season. The responses to this question did not vary by income, except regarding where purchases were made. Lower income residents were more likely to purchase local food from grocery stores and farmers' markets. Higher income residents were more likely to buy directly from local farmers and pick-your-own farms.

Age appeared to be the factor most closely associated with support for local food. People over 60 were the most likely to report buying local "as often as I can" (59%). The percentage dropped with each successive age group; only 35% of those under the age of 30 gave the same response. Figure 3 shows the variety of reasons people cited for not buying local food. Availability, price, and lack of information stood out as the most common barriers.

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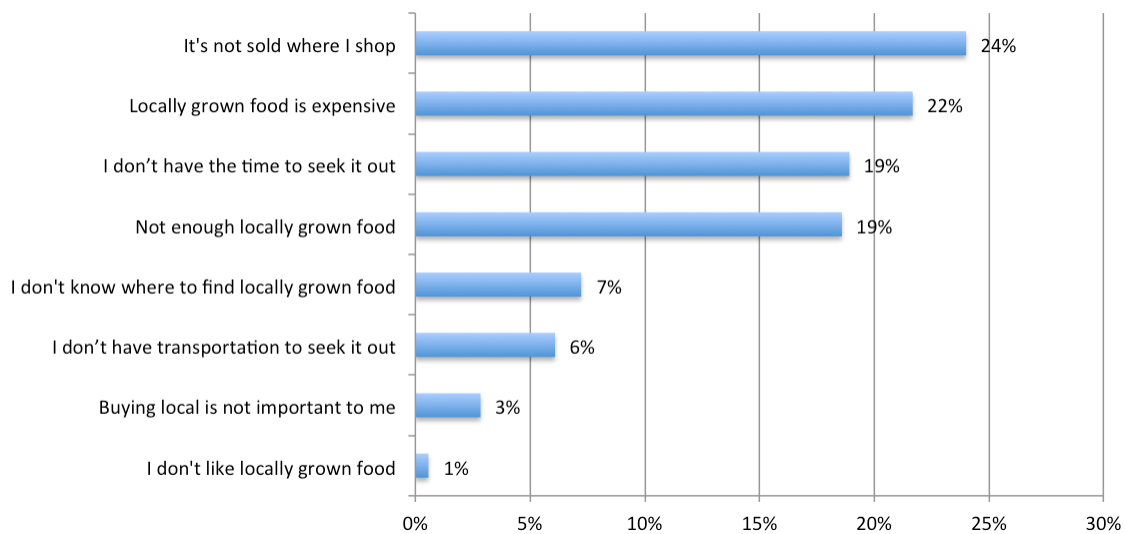
<sup>25</sup> Aldridge, H. What does the data tell us about rising poverty in Canada? Maytree. 2017 [Internet] Available from: <https://maytree.com/wp-content/uploads/What-does-the-data-tell-us-about-rising-poverty-in-Canada.pdf> [Accessed July 2020]

<sup>26</sup> Employment and Social Development Canada. Opportunities for all: Canada's First Poverty reduction strategy. [Internet]. Government of Canada. 2018 [Internet] Available from: <https://www.canada.ca/en/employment-social-development/programs/poverty-reduction/reports/strategy.html#h2.7>. [Accessed July 2020]

<sup>27</sup> Davidson, L. Board of Health Report: Chatham-Kent Nutritious Food Basket – Monitoring Food Affordability - 2019. Chatham Kent Public Health Unit, 2019.

<sup>28</sup> Dalhousie University and University of Guelph. Canada's Food Price Report 2020. [Internet] Agri-Food Analytics Lab. 2020 [Internet] Available from: <https://www.dal.ca/sites/agri-food/research/canada-s-food-price-report.html>. [Accessed July 2020]

FIGURE 3: WHAT ARE YOUR REASONS FOR NOT BUYING LOCAL FOOD?



### **Knowledge, Attitudes, and Beliefs**

In the 2012 Let's Talk Food report, just over half (51%) of people reported that they followed a healthy diet, including 10% who said their eating habits were "very healthy." Those with an annual household income under \$20,000 were the least likely to report a healthy diet (32%, "healthy" and "very healthy" combined). There was a clear gradient along age categories for the overall survey sample. Those over age 60 were the most likely to agree that their diet was healthy (68%), and the percentage dropped with each younger age group. Only 40% of those aged 30–39 and under 30 reported a healthy diet.<sup>29</sup> When asked how people get information about nutrition, most said they got their information from the Internet (71%), followed by family (51%), friends (41%), and various media sources (41%).

### **Shifting Dietary Behaviours**

There has been a gradual shift for more vegetarian and vegetable-based diets. Legumes are replacing meat in North American diets, leading to a fall in demand, especially for beef. The prominent shift is in young consumers, with 63% of vegans under age 38. This change is not just observed in women but also men. Among the Baby Boomers, the trend is toward a "flexitarian" diet, meaning there are less meat and more meat alternatives<sup>29</sup>.

### **Vegetables and Fruit**

Vegetable and fruit consumption is linked to many health benefits and is commonly used as a way to measure healthy eating. Despite a shift toward more vegetarian foods, vegetable and fruit consumption is an area where the diets of CK residents fall short of meeting Canada's Food Guide recommendations. For example, in 2015–16, 27% of CK residents who participated in the Canadian Community Health Survey reported consuming vegetables and fruit five or more times per day. Younger ages between 20–64 years were more likely to report

<sup>29</sup> Dupuis, N, Davidson, L. Let's Talk Food: Overview and background. Chatham-Kent Public Health Unit, 2013.

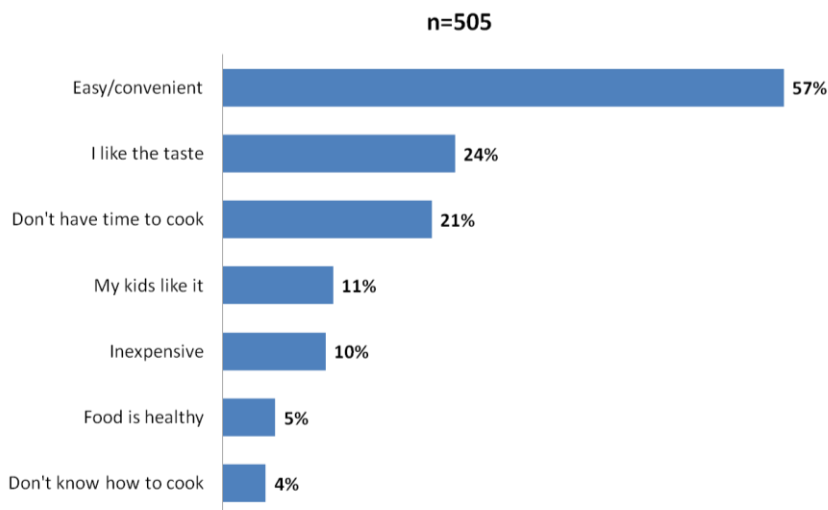


eating five or more servings of fruit and vegetables. And females were more likely to meet the recommendations compared with males (35% vs. 21%)<sup>30</sup>.

### **Fast Food**

Fast food is known for its large portions, low prices, high palatability, refined carbohydrates, and high sugar content. Evidence suggests that frequent fast food consumption contributes to overeating in teens and adults<sup>31</sup>. In the Let's Talk Food report, half (51%) of all participants said they eat at a fast-food restaurant several times a month or more. People in the lowest (<\$20,000) and the highest (>\$100,000) household income groups ate fast food the least frequently (42% of each group said "never"). Those in the second lowest income category (\$20,000–60,000) were the most frequent fast-food consumers; here, 45% reported eating fast food every day or several times per week<sup>29</sup>. Figure 2 shows that convenience is by far the most appealing factor for those deciding to eat out, but taste and time pressures were also common reasons.

FIGURE 2: WHY DO YOU EAT AT RESTAURANTS?



### **Sugar-Sweetened Beverages (SSBs)**

SSBs are beverages that contain added sugar such as pop, sugar-flavoured sports drinks, energy drinks, fruit-flavoured drinks, coffee, teas, and so forth. Frequent consumption of SSBs is associated with greater risk of weight gain/obesity, type 2 diabetes, heart disease, kidney diseases, non-alcoholic liver disease, tooth decay, and cavities<sup>32</sup>. Limiting the amount of SSB intake can help individuals maintain a healthy weight and have a healthy diet. In 2015, a survey found that 1 in 5 residents in CK consume one or more SSBs per day. This proportion was greatest among those aged 18–44 (23%), greatest among those within the lowest household income category (lowest-lower middle, 29%\*), similar across educational attainment, and greater among males (24%) compared with females (18%)<sup>33</sup>.

<sup>30</sup> Public Health Ontario. Snapshots: Chatham-Kent Public Health Self Reported fruit and vegetable intake, 2015-2016. Ontario Agency for Health Protection and Promotion. 2018 [Internet] Available from: <https://www.publichealthontario.ca/en/data-and-analysis/health-behaviours/nutrition-and-healthy-weights>. [Accessed December 2019].

<sup>31</sup> Harvard TH Chan School of Public Health. Obesity Prevention Source. [Internet] Harvard Public Health. 2020 [Internet] Available from: <https://www.hsph.harvard.edu/obesity-prevention-source/obesity-causes/diet-and-weight>. [Accessed Dec 2019]

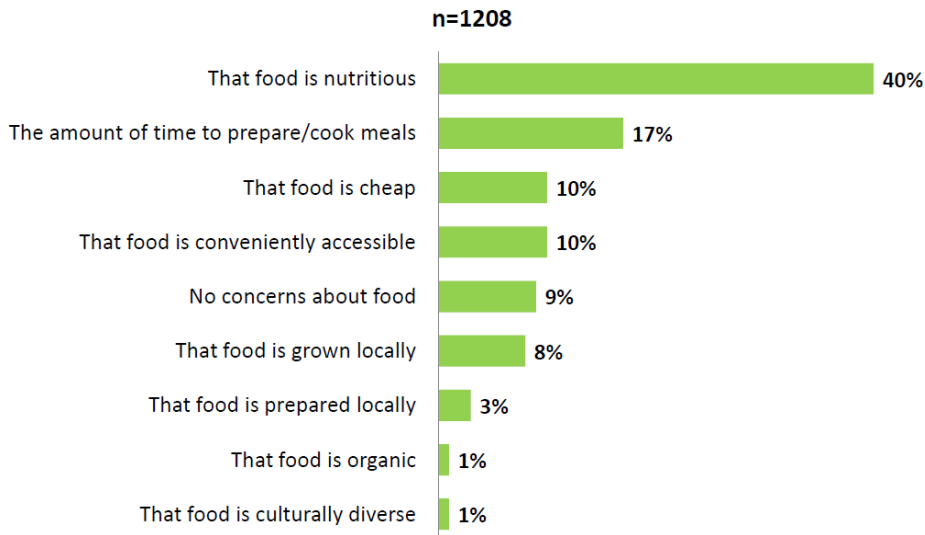
<sup>32</sup> Division of Nutrition, Physical Activity and Obesity, Centers for Disease Control and Prevention. Get the Facts: Sugar-Sweetened Beverages and Consumption. Centers for Disease Control and Prevention. 2017 [Internet] Available from: <https://www.cdc.gov/nutrition/data-statistics/sugar-sweetened-beverages-intake.html>. [Accessed July 2020]

<sup>33</sup> Chatham-Kent Public Health Unit. 2017 CK Health Status Report: Risk Factors for Chronic Disease. Chatham, ON: Chatham-Kent Public Health Unit; October 2017.

## **Attitudes, Knowledge and Beliefs**

When asked about the most important concerns related to food, almost half of the respondents cited nutrition as the most important, while only 10% were concerned that food needed to be less expensive. Figure 4 shows the responses.

FIGURE 4: WHAT IS THE MOST IMPORTANT CONCERN YOU HAVE ABOUT FOOD?



## **Food Skills**

Improving food skills by cooking and preparing food can contribute to improved food choices and eating behaviours. In 2011, CK Public Health conducted their Food Skills Survey to better understand CK residents' food shopping and preparation skills and to gain insight into the barriers to buying and consuming nutritious foods<sup>16</sup>. Residents most commonly identified barriers such as fresh foods spoiling quickly or becoming bored with eating the same kinds of foods. Most people reported meal planning as their worst food skill, followed by the ability to modify recipes, understand food labels, prepare balanced meals, and include variety in meals. In general, men reported significantly poorer food skills than women. Women were more likely to report that their family acted as a barrier to consuming more and new types of vegetables and fruit, whereas men were more likely to report that they were not aware of the health benefits of vegetables and fruit. Based on the responses, having better food skills and reporting fewer barriers were directly correlated with increased vegetable and fruit consumption among CK residents. Therefore, in addition to addressing income, focusing on programs that address food skills and barriers should impact vegetable and fruit consumption within the CK community<sup>34</sup>.

## **Access to Land for Growing, Hunting and Gathering**

Growing, hunting, fishing, and gathering for personal consumption is an important part of many different cultures and tradition. To engage in these activities, however, individuals have to acquire licenses and equipment and gain access to land, which may be a financial barrier. Tags are distributed based on how many animals can be hunted, which is determined by the Ministry of Natural Resources and Forestry.

<sup>34</sup> Chatham-Kent Public Health Unit. Report to the Board of Health: Chatham-Kent Food Skills Survey Results. Chatham, ON: Chatham-Kent Public Health Unit; June 2012.

## **Geographic Access**

The food environment, including the distribution of retail outlets, is a significant determinant of people's diet and health.<sup>35</sup> Many individuals and families live in neighbourhoods that have few quality food retail options within easy walking distance, poor access to transportation, and increased access to non-nutritious foods.

Food deserts refer to areas with relatively poor access to healthy and affordable food, and these are often in low-income areas. Food deserts are in neighbourhoods that lack grocery stores, farmers markets, and nutritious food retail outlets within walking distance. Food deserts contribute to access issues because food is often more expensive at variety stores compared with a grocery store, options for nutritious foods at variety stores are limited, and individuals living in these neighbourhoods many have trouble getting to the food retail outlets.

A 2011 assessment of the food retail environments in CK identified several food deserts, neighbourhoods, or communities where there is limited or no access to healthy food outlets. Specifically, downtown Chatham and Thamesville were identified as areas with no grocery stores within walking distance. In most rural areas, grocery stores are only accessible by vehicle, especially in Port Crewe, Port Alma, and Bradley. The study also found that the highest distressed neighbourhoods in CK have several variety stores and fast-food outlets closer than the nearest grocery store. Other areas were mentioned by the core grouping as lacking access to nutritious and affordable foods, such as Wheatley, Grand Pointe, Bothwell, Pain Court, and Merlin.<sup>36</sup> Many of the Core Working Group members expressed concern regarding why food deserts exist in such a rich agricultural community.

## **Transportation**

Inadequate transportation options for all residents was identified as an issue in the 2012 Let's Talk Food Report/community food system assessment, and it continues to be a barrier per the Core Working Group members. In the absence of nearby grocery stores, residents require personal and/or public transportation to purchase food from grocery stores. Many rely on convenience stores, which often do not have fresh produce and/or other nutritious staples available.

The Municipality of Chatham-Kent works to meet the transportation needs for the people living in urban and rural various communities throughout. Because of the large geographic span, connecting communities in a timely and affordable way presents challenges. Currently, Ride CK is working to make public transportation more easily accessible for CK residents. The transit system provides conventional services within the community of Chatham, with stop locations adjacent to several grocery stores. The Inter-Urban Conventional service is also offered five times per day, connecting residents in other smaller communities to the Chatham system and to grocery stores in Wallaceburg, Ridgeway, Blenheim, Dresden, and Tilbury. In addition, for those unable to access the conventional service because of a disability, Ride CK also offers curb-to-curb accessible transit. The Municipality also partners with other transportation providers to ensure there is a subsidized and accessible transit option to any rural resident regardless of location. Partnerships include Four Counties Transit, Erie Shore Community Transit, and AdvANTage Transportation.

## **Future Considerations**

Some of the local data on purchasing behaviours, attitudes, knowledge, beliefs and food skills is approaching 10 years since data collection. Collecting local data on these behaviours will provide important information on local context and trends to help inform future direction.

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<sup>35</sup> Story, M., Kaphingst, K.M., Robinson-O'Brien, R. et. al. Creating healthy food and eating environments: Policy and environmental approaches. 2008. Annual Review of Public Health 29(1): 253–272.

<sup>36</sup> Gilliland, J. & Sadler, R. Mapping Environmental Barriers and Enablers for Healthy Living in Chatham-Kent. Prepared for Chatham-Kent Public Health. Human Environments Analysis Laboratory (HEAL), UWO. Presentation November 30th, 2011.

### Highlighted Programs and Activities:

- [Food Link CK](#) is a made up of community members, organizations and businesses who collaborate on increasing awareness, advocate, educate and provide networking opportunities on issues related to improving access to nutritious foods for CK residents.
- [CK Student Nutrition Program](#) consists of 450 volunteers working to provide nutritious meals and snacks to over 10,000 children in most schools across the municipality.
- CK offers hot meals and soup kitchens daily with 21 different locations where individuals can go and eat. The [CK meal calendar](#) is updated twice a year to ensure that information on locations, hours, and multiple resources and support are provided and updated information in provides on the CK Food Policy Councils website in between.
- CK has a pilot project in three recreational arenas called “Fuel Up” that promotes fruits and vegetables and other healthier options in canteens.
- CK has a farm to institution program (i.e., daycare, schools), where licensed childcare facilities and participating schools receive produce from local farms. In total, there are 21,000 youth participating in programs that provide access to vegetables and fruit.
- CK Public Health and Employment and Social Services have provided fruit and vegetable vouchers for their clients.
- **Community & Home Assistance Program (CHAP)** provides frozen meals and a delivery system to help seniors and adults with long-term disabilities.

# FOOD WASTE

## Food Loss vs. Food Waste<sup>37</sup>

**Food loss** refers to any food that is lost in the supply chain between the producer and food retailer. This may be the result of infrastructure limitations, climate and environmental factors, or quality, aesthetics, or safety standards. Food loss occurs most often at the production, harvest, and processing stages of the food system. It is an aspect that consumers have little control over.

In this section, we focus on **food waste**, which is referred to as the discarding of food that is safe and nutritious for human consumption.

**Food waste management** refers to the collection and disposal and/or composting of edible food products that are not eaten. It also refers to the collection and disposal or recycling of the packaging used to bring food to consumers.

Food is wasted in the following ways:

- Fresh produce that deviates from what is considered optimal in terms of shape, size, and colour; for example, food is often removed from the supply chain during sorting operations and at the retail display stage.
- Foods that are close to, at, or beyond the “best before” date are often discarded by retailers and consumers.
- Large quantities of wholesome edible food are often unused or left over and discarded from household kitchens and eating establishments.

There are three main approaches to food waste management:

- Reducing food-related waste such as packaging used for food products
- Reducing the amount of edible food that is wasted through all areas of the food system by improving efficiencies in as many areas as possible
- Reducing compostable food items, such as food scraps and food-soiled paper that end up in landfill

## Reducing Food-related Waste Such As Packaging

In 2018, the Ontario government identified a need to “reduce the amount of waste we generate and divert more waste from landfill.” Through their “Preserving and Protecting our Environment for future Generations – A Made in Ontario Environment Plan,”<sup>38</sup> the Ontario government has proposed making producers responsible for the full life cycle of their products and the waste they produce. The government believes this will help companies consider what materials they use to package products and find new and innovative ways to recycle them. The plan includes several other actions related to plastic waste, including the following:

- Working with other provinces, territories, and the federal government to develop a plastics strategy to reduce plastic waste and limit micro-plastics that can end up in our lakes and rivers
- Seeking federal commitment to implement national standards that address recyclability and labelling for plastic products and packaging to reduce the cost of recycling in Ontario

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<sup>37</sup> Food and Agriculture Organization of the United Nations. 2019. [Internet] Available from: <http://www.fao.org/food-loss-and-food-waste/en/> [Accessed November 2019]

<sup>38</sup> Ministry of the Environment, Conservation and Parks. Preserving and Protecting our Environment for future Generations – A Made in Ontario Environment Plan. [Internet] Available from: <https://prod-environmental-registry.s3.amazonaws.com/2018-11/EnvironmentPlan.pdf>. [Accessed November 2019]

- Working to ensure the Great Lakes and other inland waters are included in national and international agreements, charters, and strategies that deal with plastic waste in the environment

In addition, the current federal government is planning to ban single-use plastics such as bags, cutlery, straws, and water bottles as early as 2021 to reduce the amount of plastic waste produced by Canadians.

Although consumers do not have as much control over this area of food waste management, the Core Working Group members recognized that consumer expectations and purchases influence other parts of the food system. For example, because of consumer desire for “perfect” looking fruit, less-than-perfect looking but equally nutritious, foods do not end up on retail shelves. Because consumer ideals influence the food system, the Core Working Group members identified the need for a shift in consumer culture when it comes to food and food packaging. Members spoke to the need to create a consumer culture of mindfulness where consumers vote with dollars to either encourage or discourage, for example, individually packaged or plastic-wrapped products.

CK currently offers a two-stream recycling program for fibre, cans, glass, and plastics. Plastic food and beverage containers and tubes with symbols 1 through 7 are collected. The blue and black bins are provided free of charge by the municipality. Large recycling toter carts are available to all multi-residential, commercial, industrial, and institutional properties and are subsidized by the municipality at 50% of the cost. Although multi-residential buildings are required by the Ministry of Environment, Conservation, and Parks to have a separation/recycling program for waste generated at the building, we heard from Core Working Group members that on-site recycling was not always offered to the residents of multi-residential buildings.

The municipality has worked to increase awareness about recycling options available through implementing [MyWaste App](#), a free app that provides residents with reminders about waste pick-up and information about what is recyclable. The municipality also has digital resources available for schools and organizations that helps children in grades 4 and 5 understand why recycling and diverting waste from the landfill is important.

### **Reducing Food Waste Throughout the Food System**

Approximately 47% of food wasted in Canada occurs at home. The other 53% of wasted food is generated along the value chain when food is produced, processed, transported, sold, and prepared and served in commercial and institutional settings. Food that is grown, raised, caught, or harvested but never eaten is considered to be food loss and waste, for example, a piece of fruit that is damaged during transport; food items in grocery stores that spoil before they can be sold; leftovers from a meal prepared at home that are not eaten; or food dishes prepared in a restaurant that are never served and are instead discarded. The term food loss applies from the point of maturity of a crop, finishing, catch, or harvest up to, but excluding, the retail stage, whereas food waste is applied to the retail and final food preparation and consumption stages.

The resource published by the government of Canada, “Taking stock: Reducing food loss and waste in Canada” provides background on where food loss and waste occurs across the food system, why it occurs, current actions to reduce food loss and waste, and areas for future development<sup>39</sup>. Overall, producers, processors, and food retailers are motivated to create efficiencies across the food system because less food loss and waste affects revenue.

Some local programs have been initiated to reduce the amount of edible food that is wasted in the food system. For example, the [CK Gleaning program](#) is a link between food producers and community agencies to divert food that would otherwise be left in the field to people and organizations who can use it. Local growers

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<sup>39</sup> Government of Canada. Taking stock: Reducing food loss and waste in Canada [Internet] Available from: <https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/food-loss-waste/taking-stock.html>. [Accessed November 2019]



can take advantage of policy incentives and claim a tax credit, in addition to the charitable donation tax credit, for up to 25% of the market value of their food donations.

[Food Rescue](#) is a provincial initiative that is available in CK and connects food businesses with surplus food to social service organizations that feed people in need. The [Flash Food App](#), available across Canada, allows people to receive discounts on food items nearing their best before date at certain Loblaw's stores. Currently, the app can be used at Superstore in Chatham. Marketing programs [Naturally Imperfect](#) (Loblaws) intended to promote the sale of produce that typically would not meet aesthetic standards.

Still, the Core Working Group members said that organizations and community members may be wary of donating foods with a best before date because of fear of making people sick or of liability if people do get sick. However, the [Ontario Food Donation Act](#) protects everyone involved in a food donation from liability when the food is donated in good faith. In other words, the donor and recipients of the food are not at-risk of liability as long as the food was not donated with the intention to make people sick or if it was not reasonable to predict that the food could have made people sick.

### **Diverting Food Waste from the Landfill**

#### *Why Divert Food Waste?*

When food waste breaks down in oxygen poor conditions—such as in a landfill, it creates methane, a greenhouse gas that is at least 25 times more potent than carbon dioxide. However, if that same food waste is diverted from the landfill and composted in oxygen-rich conditions, different microbial communities thrive and break down the material, producing carbon dioxide instead of methane. Although carbon dioxide is a greenhouse gas, it is much less intensive than the methane that otherwise would be produced if the same waste was sent to the landfill. Ultimately, sending food and organic waste to landfills is unsustainable and puts additional strain on our environment by taking valuable nutrients out of the food web, requiring new landfill capacity, and contributing to climate change.

Composting food waste instead of putting it in landfills reduces the impact on our climate by a factor of 25, or 2500%. Composted material can be a valuable soil amendments that are rich in nutrients, reducing the need for soil supplementation with products that are resource-intensive to produce. Composting can also produce valuable by-products such as biogas that can be injected into the natural gas distribution system or burned in a combined heat and power plant to generate electricity. Turning food and organic waste into compost or other valuable products can also create economic benefits. Research completed by the Ontario Ministry of Environment and Climate Change (renamed the Ministry of Environment, Conservation, and Parks) in 2015 found that collecting and recovering 1,000 tons of food and organic waste generates 60% more GDP and 40% more jobs than landfill disposal<sup>40</sup>. Locally, composting may produce local economic benefits and local jobs.

#### *Residential Food Waste*

In Ontario, a lot of food and organic waste ends up in landfills every year, with an average household throwing out 125 kg of food waste annually. The residential sector generates about 55% of all food and organic waste in Ontario. Across Ontario, about 50% of this household food waste is currently diverted from landfills. In CK, there is currently no municipal compost program, and the municipality does not currently offer backyard composters for sale. Curbside recycling and waste disposal services are available in 20 communities throughout CK. In most rural areas, residents are required to bring their waste and recycling to a transfer station.

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<sup>40</sup> Ontario Ministry of the Environment and Climate Change. Discussion Paper: Addressing Food and Organic Waste in Ontario. [Internet] Available from: [http://www.downloads.ene.gov.on.ca/envision/env\\_reg/er/documents/2017/013-0094\\_DiscussionPaper.pdf](http://www.downloads.ene.gov.on.ca/envision/env_reg/er/documents/2017/013-0094_DiscussionPaper.pdf). [Accessed November 2019]

Although composting is not technically or technologically complex, the cost of the composting infrastructure within the current waste management system in CK is high, and the number of existing composting facilities is currently limited, which has constrained the municipality’s ability to compost food and organic waste. In short, it is cheaper to send our food waste to landfill than it is to compost it. However, from a climate change lens, diverting organics from landfills may be one of the least expensive ways for CK to reduce its carbon emissions. As identified earlier, the potential to reduce costs and expand composting capacity in CK and Ontario also present attractive opportunities for economic innovation and growth through the development and implementation of new food waste management processes and systems.

### *Commercial Food Waste*

The Industrial, Commercial, and Institutional (ICI) sector, including offices, factories, and public facilities, make up the remaining 45% of food and organic waste in Ontario. Currently, only about 17% of food waste from the ICI sector is diverted from landfills. CK is host to the Ridge Landfill, which is owned by Waste Connections of Canada and located near Blenheim. The landfill facility provides a waste disposal service to ICI customers from across the province and to the residents of CK. Approximately 98% of the waste accepted at the landfill is from the ICI sector and the remaining 2% is municipal waste from CK. The Ridge Landfill site is approved to receive 1.3 million metric tons of waste per year. The site is currently seeking approval to provide waste disposal services for an additional 20 years<sup>41</sup>.

	Industrial, Commercial, & Institutional	Residential
% of total food waste generated in Ontario	45%	55%
% of food waste diverted to landfills in Ontario	17%	50%

In their Food and Organic Waste Framework, the government of Ontario notes that there needs to be some significant effort moving forward within the ICI sector.<sup>42</sup> As a part of the 2018 “Preserving and Protecting our Environment for Future Generations – A Made in Ontario Environment Plan,”<sup>35</sup> the provincial government proposed doing the following:

- Expand green bin in “large cities” (not defined)
- Develop a proposal to ban food waste from landfills
- Educate the public and businesses about reducing and diverting food and organic waste

Locally, as around the globe, there is a growing interest to work together to raise awareness about and share experiences of reducing waste and diverting food and packaging from landfill. In July 2019, the CK Council declared a climate change emergency. The municipality is now developing a climate change action plan to determine what measures are needed to reduce emissions and build resiliency to climate change. The management of food waste in CK will be integrated into the plan. Zero Waste Chatham-Kent, a local grassroots group, was formed by residents in 2019 to support household waste reduction efforts and to advocate for waste reduction across the municipality.

<sup>41</sup> Waste Connections of Canada. Ridge Landfill. [Internet] Available from: <https://www.ridgelandfill.com>. [Accessed November 2019]

<sup>42</sup> Ministry of Environment and Climate Change, Food and Organic Waste Framework. [Internet] Available from: [www.ontario.ca/page/food-and-organic-waste-framework#section-1](http://www.ontario.ca/page/food-and-organic-waste-framework#section-1). [Accessed November 2019]

## Highlighted Activities and Programs

- CK has a [gleaning project](#) where volunteers gather leftover crops from local farmer's fields. In 2020, the gleaning project worked with 10 local farmers. In total, 485 baskets of 16 different crops of fruits and vegetables were gathered and distributed. All produce collected goes to local community groups, food banks, soup kitchens, and schools.
- [Foodrescue.ca](#) is a website that is funded through Second Harvest in Toronto. This is a provincial project being promoted in CK. The main goal is to keep food from being thrown out and ending up in the landfills. The website enables food businesses to make surplus food available to local service organizations within the municipality. In 2019, 4,415 lbs of food had been saved through this project.
- In CK, the Ursuline sisters had a [Rocket Composting program](#) that used food waste from the kitchen and made compost. This compost was used in CK community gardens. From July 1, 2018, to May 31, 2019, 3.9 tons, or 8,736 lbs, of food waste was kept from going to the landfills. This waste made 1.74 tons, or 3,897.6 lbs, of compost.
- [Zero Waste Chatham-Kent](#) is a grassroots group formed by residents to make sustainable living the norm in CK. The group builds community around, educates about, and advocates for less waste in CK.
- [Flash Food App](#) allows individuals to buy quality, surplus grocery items at a steep discount at certain Loblaw's stores.

## LIMITATIONS

The following themes were identified as areas where more consultation is needed to find out more about the current context. We have not gathered detailed information for this report on the below topic areas.

### **Employment in Agricultural and Food and Beverage Sector**

During stakeholder consultation, the members discussed the potential connection between low-income earners and employment in the food and beverage sector and for general labour in agriculture. Many of these jobs would require a minimal education as a prerequisite for employment, and they queried if this would result in a higher proportion of low-income earners within this job sector compared with other sectors. Other points that were discussed for future considerations were the following:

- If these employment sectors have a higher proportion of vulnerable population groups, that is, women, youth, visible minorities, and/or newcomers.
- How does hourly rate/annual income compare with other employment sectors?
- What types of benefits are available to employees?
- What are the strengths and challenges of the Seasonal Agricultural Worker Program (SAWP)? This program allows employers to hire temporary foreign workers (TFW) when Canadians and permanent residents are not available.
- What are the employment opportunities locally within these employment sectors? Overall, what are the strengths and challenges of employment within these sectors?
- Toronto Public Health and the Toronto Food Policy Council conducted the Good Food, Good Jobs: Seeking Better Employment Outcomes in the Food Sector. A survey was done in 2015 and provided details on employment in the food and beverage sector. In Toronto, the sector accounted for 9% of all jobs and 36% of all that jobs that have no education requirement.

### **Greenhouse Food Production**

The main crops produced in greenhouses in Ontario are tomatoes, seedless cucumbers, and peppers. According to Agriculture and Agri-Food Canada, the Canadian greenhouse vegetable sector is the largest and fastest growing segment of Canadian horticulture. Greenhouse farming produces agriculture products in a controlled environment, where systems supply plants with heat, water, nutrients, sunlight, and artificial lighting. The Canadian greenhouse industry produces tomatoes, cucumbers, lettuce, peppers, green beans, eggplants, and various herbs and microgreen vegetables. Ontario represents 70% of the total harvested area in Canada and produced 69% of all Canada's greenhouse vegetables<sup>43</sup>

Locally, the greenhouse sector in CK is expanding with multiple local greenhouse growers. For this report, we have not separated greenhouse growers from agricultural production. In the future, we would want to consider the strengths and challenges of greenhouse production and what the current state is for CK.

### **Food Worker Shortages in Agriculture**

Some of the committee members expressed that many businesses want to expand, but there are worker shortages. There were a number of reasons mentioned related to the agricultural work, from labour requirements, wages, and physical demand for the type of work. This was also mentioned in the food processing sectors as well. Solutions and opportunities were discussed; however, we did not get extensive details from the stakeholders about this topic. This would be an opportunity to partner with other municipal departments to have further conversations.

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<sup>43</sup> Government of Canada: Agriculture and Agri-Food Canada. Statistical Overview of the Canadian Greenhouse Vegetable Industry – 2016. 2017 [Internet] Available from: [www.agr.gc.ca/horticulture\\_e](http://www.agr.gc.ca/horticulture_e). [Accessed July 2020]

## **CK Emergency Response and Food Access**

While writing this primer document, in March 2020, the global pandemic of COVID-19 was declared. This resulted in many impacts on the operations of emergency food providers. For example, programs needed to consider how food is offered, the safety of volunteers, and the risks of person-to-person interactions. As a result, some adapted their operations to the requirements, and others chose to stop providing the community service. With closures of public setting and unemployment, providing support for food access programs was quickly identified as a community need in CK. For example, a community and social services helpline, 211, received the majority of calls from people inquiring about food access programs in April 2020. Community members and service providers quickly helped to provide food access support for individuals and families. Programs and services were revamped and initiated to ensure that individuals who needed support received the services. For example, grocery gift cards were distributed to families, food banks expanded their services to provide prepacked hampers, curb side food drop offs were delivered, a local food drive set global records, CK Good Food Box was initiated, food deliveries were made, and a CK Mobile Market begun.

Although we didn't anticipate a global pandemic to be the impetus for many of these program initiations and decisions, time was not in our favour, and we gathered quickly to help ensure community members had food access. With the work of community partners and support from municipality of CK, these community food access programs align with the conversations that were expressed from community consultation. As we work towards focusing our efforts on advocating for adequate and secure income as a solution for food insecurity, we will continue to support the organizations who provide emergency food supports, so that the structures are in place, to support people in the interim who face this challenge.

# Section 3: Mission, Vision, and Values

The strategy is pillared by the shared perspective that “**Food connects us**” and that a sustainable food system protects natural resources, strengthens communities, and increases physical, social, and mental well-being.

The food system work is guided by the following principles:

- We all deserve nutritious food.
- Food creates healthy and vibrant neighbourhoods.
- Local food employs people and keeps money local.
- Food attracts people and is part of CK’s culture and heritage.

The vision, mission, values, and goal statements were established by the core working members during the consultation process. Discussion and decisions on the vision, mission, values, and goals set the foundation to guide further conversations of the recommendations and actions to achieve that direction. With much discussion and various opportunities for input, these areas are considered a final version.

## **Our VISION**

A healthy food system for a healthy community

## **Our MISSION**

*Partnering to create a coordinated, vibrant, sustainable, and local food system that is accessible to and affordable for everyone in Chatham-Kent.*

## **Our VALUES**

Sustainable                      Safe                      Affordable                      Nourishing

### **GOALS of the Food Strategy**

- Increase access to local, nourishing, traditional, and culturally diverse foods.
- Improve food literacy and skills.
- Increase the opportunities that support a safe and prosperous local food system.
- Strengthen partnerships to increase capacity for collective action within the food system.
- Reduce the environmental impact and improve climate resilience across all parts of the food system.
- Increase the integration of local food to support cultural identity and social interaction.

During consultations, the Core Working Group members identified recommendations and actions to best achieve these goals. To reaffirm them, we did a larger community consultation. As a result of the Core Working Group's feedback and the broader community consultation, the following recommendations and actions have been selected.





#### RECOMMENDATIONS:

1. Strengthen supply, demand, and access to local, traditional, and culturally diverse foods available to all markets.
2. Promote innovation and **incentivise** market access of local, traditional, and culturally diverse foods within our local food system.
3. Encourage and support training programs and opportunities within the agriculture and food and beverage sectors.
4. Enhance public awareness of the cultural, health, ecological, and economic value of forest and freshwater foods (FFWF).
5. Promote physical access to nourishing, local foods in all neighbourhoods, prioritizing neighbourhoods that have the highest need.
6. Improve individual and household food access and security.
7. Improve confidence, knowledge, and skills to make informed food choices.
8. Enhance the visibility and promotion of **community stakeholders** and programs that support the local food system.
9. Reduce food waste and food-related packaging throughout the food system.

\*The bolded words additions brought forward from community feedback. The project team was in agreement with the suggested additions.



## ACTION PLAN:

CK's Food Action Plan		Area of the Food System			
ACTION	RECOMMENDATIONS				
Advocate for provincial and municipal policies to protect land for agriculture, freshwater foods, and forest foods.	1, 3, 4, 6	X		X	
Provide support and resources for <u>edible landscaping</u> within community organizations, businesses and on municipal land.	1,5,6,7	X		X	
Provide resources and support for existing and development of additional community gardens in neighbourhoods across CK.	1, 2, 3, 5, 6, 7	X		X	
Advocate for and support initiatives that focus on training programs, job creation, fair wages and decent work in agriculture and the food and beverage sectors.	3	X	X		
Partner with education sector and college to raise awareness about jobs in agriculture and the food/beverage sector.	3, 8	X	X		
Strengthen access and opportunities for farming as a living particularly for new farmers.	1,2,3	X			
Support agriculture skills training and new farm enterprises.	1,2,3,5	X	X		
Enhance the promotion and marketing of local food branding to include an education and awareness campaign (why is it important, what is local produce, what is the value of supporting local).	7,8	X	X	X	
Promote local food as part of community festivals, tourism, and other events, including fish, agriculture, and forest foods.	1,2,3,4,5		X	X	
Attract business opportunities for food waste and composting.	9		X		X
Ensure people have access to nutritious, local foods in neighbourhoods/communities by prioritizing the areas of highest need.	1,2,5,6,7,8			X	
Develop a public awareness strategy of the economic, cultural, health, and environmental value of local foods (forest, freshwater, and agricultural foods).	1,3,5,7,8	X	X	X	X
Work with local stakeholders and partners to advocate at all levels of government for adequate incomes.	6,8			X	
Organize a collaborative effort to increase food literacy opportunities within Chatham-Kent.	3,7,8			X	
Increase community capacity to integrate food literacy programs and practices into education and training for youth and priority populations.	5,7,8			X	
Create a food program/services directory.	1,2,3,4,8,9	X	X	X	X

Implement marketing and education programs to reduce food waste at home, work, school, and other public facilities.	7,8,9			X	X
Continue to support and increase awareness about food recovery programs to divert edible food from being wasted or end up in landfills.	5,7,8,9			X	X
Support and create awareness of provincial legislation on recyclable packaging.	9			X	X
Provide education, support, and advance policy on single-use plastics in community programs and municipal services and events.	7,8,9			X	X
Support the development of composting programs in all settings (apartments, workplaces, home, and schools).	7,8,9			X	X
Support opportunities for local businesses to divert or reduce food waste and food-related packaging.	9			X	X
Provide education/awareness programs to promote recycling and composting.	7,8,9			X	X



FOOD PRODUCTION, PROCESSING  
DISTRIBUTION



FOOD BUSINESS



FOOD ACCESS & LITERACY



ENVIRONMENTAL  
SUSTAINABILITY &  
FOOD WASTE

# Section 4: Next Steps/Future Work

All sectors of the food system including farm production, processing, distributing, food business, and consumer access were impacted by the pandemic. Although our food system is one of the most robust and resilient across the globe, the pandemic demonstrated some of the weakness in the interconnected web of activities that keep us fed. There were implications of these weaknesses on food security at both the household and community level. Some of the challenges were:

- Food supply is based on historical demand and when this changes abruptly, it takes time to respond, resulting in empty shelves. These food shortages created consumer anxiety around food access causing some community members to stockpile groceries. Furthermore, individuals who were not able to stock up on items, were often left with items unavailable to them. In addition, suppliers were leery about ramping up production when short-term surge is likely temporary.
- Other reasons such as travel restrictions and quarantine requirements resulted in reduced availability of temporary foreign workers to plant and harvest.
- The demand for emergency food supports has increased significantly due to the increased number of households experiencing unexpected job loss and layoffs. Low income communities were the most affected and therefore experienced a significant loss in income.

As we move towards recovery, the rising cost of food is affecting food security in Canadian households. Based on available data from the 2019 Canadian Income Survey, 5.7 million Canadians live in food insecure households. Their incomes have been inadequate for basic needs and will become more so now with rising food costs. A basic income guarantee is needed to reduce gaps for those who need it the most. If nothing is done to increase the incomes of vulnerable households in line with the rising costs of living, we can expect to see both the prevalence and severity of food insecurity increase.

Pre-pandemic there had been growing interest to invest in local capacity to meet food needs. The challenges faced during the pandemic have reinforced public and political interest to strengthen the local food system. Food is essential to human life and a system that is heavily dependent on imports may not support demand during a time of crisis.

Although we had some delays in our timeframe, we are grateful that much of the food related work carried on by the dedicated stakeholders in our community. We look forward to learning more about what has been happening and continuing to support this important work throughout CK.

**As we move to the next chapter of this food strategy we will work towards the following:**

- Present the information to our stakeholders and community members.
- Consult with community stakeholders to help prioritize the action plan and to provide an update on the actions items that stakeholders have been working towards.
- Connect with the stakeholders and/or community members to support the prioritized activities within the food strategy.
- Engage with community stakeholders and people who are most affected by food insecurity to reflect their needs. These priority groups include: Black, Indigenous and people of colour; people with disabilities; workers; and renters.
- Greater reflection on the cultural diversity and traditions related to food in our community.
- Redesign and communicate the progress of the Food Strategy through a community website i.e. Let's Talk Food CK.

Let's Begin!

# Section 5: Definition of Terms

Sustainable Diets	“Sustainable Diets are those diets with low environmental impacts which contribute to food and nutrition security and to healthy life for present and future generations. Sustainable diets are protective and respectful of biodiversity and ecosystems, culturally acceptable, accessible, economically fair and affordable; nutritionally adequate, safe and healthy; while optimizing natural and human resources <sup>44</sup> .”
Sustainable food system	“a sustainable food system [a]s a food system that delivers food and nutrition security for all in such way that the economic, social and environmental bases to generate food security and nutrition for future generations are not compromised <sup>45</sup> .”
Food System	A food system includes everything from how food is grown to where it is thrown. It is a reflection of social, cultural, political, economic, health, and environmental conditions, and is affected by decisions at the household, local, regional, national, and global levels <sup>46</sup> . (adapted from San Diego Food Vision 2030)
Let’s Talk Food community assessment	Chatham-Kent Public Health undertook Let’s Talk Food, a broad and inclusive stakeholder consultation, framed as a community food system assessment, to understand needs, hear ideas for a better regional food system, identify healthy eating policy priorities, and to begin the process of taking action on these ideas.
Fast Food outlets	Fast food outlets are take-away or take-out providers that promise quick service.
Advocacy	Advocacy is an activity that aims to influence decisions within political, economic, and social institutions. Advocacy includes activities to influence policy, laws and budgets by using facts, their relationships, the media, and messaging to educate government officials and the public. Advocacy can include many activities such as media campaigns, public speaking, commissioning and publishing research.
Community stakeholders	Stakeholders are those who may be affected by or have an effect on an effort. Stakeholders can affect or be influenced by the strategies actions, objectives and policies.
Food Production	Urban and rural farming and gardening practices that lead to growing raw food crops and provides animal-based foods, including fresh water foods. Includes large-scale agri-businesses, family farms, small-scale agriculture, hobby farms, urban agriculture and commercial fisheries.
Food Processing	Transforming agricultural products into a form that is market ready. Includes washing, peeling, packaging, freezing, canning, and meat processing.
Food Distribution	The process of transporting food from suppliers to consumers using the food supply chain.

<sup>44</sup> Burlingame B, Dernini S. Sustainable Diets and Biodiversity: Directions and Solutions for Policy, Research and Action. Rome, Italy: Nutrition and Consumer Protection Division, Food and Agriculture Organization; 2012.

<sup>45</sup> HLPE. Nutrition and Food Systems. A report by the High Level Panel of Experts on Food Security and Nutrition of the Committee on World Food Security [Internet]. Rome: Committee on World Food Security; 2017 [cited 2017 Sep 26] p. 152. (HLPE Report Series). Report No.: 12. Available from:

[http://www.fao.org/fileadmin/user\\_upload/hlpe/hlpe\\_documents/HLPE\\_Reports/HLPE-Report-12\\_EN.pdf](http://www.fao.org/fileadmin/user_upload/hlpe/hlpe_documents/HLPE_Reports/HLPE-Report-12_EN.pdf)

<sup>46</sup> The San Diego Food System Alliance. San Diego County Food Vision 2030. Available from: <https://engage.sdfsa.org/>

Food Retail and Business	Businesses that store, prepare, package, serve or provide food for people to eat. Includes restaurants, grocery, market, or convenience stores, food stands or food trucks, schools or institutions, hotel, vending machine, retail bakery and may directly or indirectly deliver food, such as home grocery delivery or a restaurant takeout order. All food, other than restaurant food, that is purchased by consumers and consumed off-premise. Retail food generally includes all grocery stores, mass merchandisers, drug stores, convenience stores, specialty stores like health food stores, by mail order or over the Internet.
Food Tourism	The exploration of food as the purpose of tourism. Dining out is common among tourists and "food is believed to rank alongside climate, accommodation, and scenery" in importance to tourists.
Food Access	Where food is purchased and provided. Includes grocery stores, convenience stores, community and charity food programs, farm markets and farm gate sales. Food Access is influenced by physical and economic access to food, housing, social supports, food skills, culture and access to land for hunting and gathering.
Food Literacy	A set of interconnected attributes organized into the categories of food and nutrition knowledge, skills, self-efficacy/confidence, food decisions, and other ecologic (external) factors such as income security, and the food system. It is... 1. Knowing about food - Your understanding of food and nutrition. 2. Having food skills - Your ability to buy, prepare, handle and store food. 3. Feeling confident about food - when choosing, preparing, and eating food. 4. Making healthier food decisions most of the time. 5. Improved by having a supportive food system; food environment; living situation; and culture and traditions.
Environment Sustainability	According to the United Nations (UN) World Commission on Environment and Development, "environmental sustainability is about acting in a way that ensures future generations have the natural resources available to live an equal, if not better, way of life as current generations <sup>47</sup> ".
Food Loss and Food waste	<b>Food loss</b> refers to any food that is lost in the supply chain between the producer and the food retailer. This may be the result of infrastructure limitations, climate and environmental factors as well as quality, aesthetics or safety standards. Food loss occurs most often at production, harvest, and processing stages of the food system. It is an aspect that consumers have little control over. <b>Food waste</b> , which is referred to as the discarding of food that is safe and nutritious for human consumption. <b>Food Waste management</b> refers to the collection and disposal and/or composting of edible food products that are not eaten. It also refers to the collection and disposal or recycling of the packaging that is used to bring food to consumers.
Hobby Farms	A hobby farm for the purpose of this report, refers to a small-scale farm that is primarily for pleasure instead of being a business venture.

<sup>47</sup> United Nations Environment Programme. "Sustainability", Available at: <https://www.unenvironment.org/about-un-environment/sustainability>. Accessed October 2020.

Urban Agriculture	The practice of cultivating, process, and distributing crops animal in, or around a village, town, or city.
Commercial Fisheries	Commercial fishing is the activity of catching fish and other seafood for commercial profit, mostly from wild fisheries.
Generational Farming	Essentially means to pass down the farm to the next generation.
4-H Canada	4-H Canada is a not-for-profit organization that is focused on strong leadership for youth development experiences in Canada
Biotechnology	For the purpose of this report biotechnology is the application of scientific techniques to modify and improve plants, animals and microorganisms.
Irrigation Water	Refer to watering crops by bringing in water from pipes, canals, sprinklers, or other man-made means, rather than relying on rainfall alone.
Food Availability	Food availability is when all people have sufficient quantities of food available on a consistent basis.
Fuel Up	A Chatham Kent Super Kids initiative that brought nutritious food options to local arenas
Edible Landscaping	Edible landscaping is the use of food-producing plants in the landscape.
Nutritious Food Basket	The Nutritious Food Basket (NFB) serves as a tool to monitor the cost and affordability of nutritious eating. The Basket includes approximately 60 foods that represent a nutritious diet for individuals in various age and gender groups. Local health units in many provinces in Canada routinely collect and report the annual cost of a NFB in their areas.
Food Justice	“Food justice seeks to ensure that the benefits and risks of where, what and how food is grown, produced, transported, distributed, accessed and eaten are shared fairly. Food justice represents a transformation of the current food system, including but not limited to eliminating disparities and inequities...” and that “key to achieving food justice is to have communities who have experienced injustices empower themselves to participate in the political process <sup>48</sup>
Community Food Security	Community food security 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 <sup>49</sup> .

<sup>48</sup> Alkon AH, Agyeman J. Cultivating Food Justice [Internet]. Available from: <https://mitpress.mit.edu/books/cultivating-food-justice>. [Accessed Oct 2020]

<sup>49</sup> Dietitians of Canada. Community food security position of Dietitians of Canada. Toronto, Ont.]: Toronto, Ont. : Dietitians of Canada; 2011.