Local Food for Health Care:

An assessment of the practicality, cost benefit, health and environmental benefits of incorporating more local food into patient and cafeteria meals.

Ontario Trillium Foundation
Fondation Trillium de l'Ontario

The Canadian Coalition for Green Health Care
Coalition canadienne pour un système de santé écologique

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- Anne Marie MacKinnon, who is a registered dietician working at William Osler Health Centre in Brampton, Ontario as the Director of Patient Services for Carillion Inc.
- Joanne Bays, is a population health nutritionist and a food policy consultant with special interest in food localism and its impact on personal, community, and environmental health in British Columbia.
- Leslie Carson, who is registered dietician working at St. Joseph's Health Centre in Guelph, Ontario as their Food Service Manager.
- Elisa Wilson, who is a registered dietician currently working as a Dietary Advisor for the Ministry of Health and Long-Term Care, Performance Improvement and Compliance Branch.

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    - Dr. Vinay Kanetkar, Associate Professor, Department of Marketing and Consumer Studies, College of Management and Economic, University of Guelph
    - Dr. Alison Blay-Palmer, Associate Professor, Department of Geography and Environmental Studies, Wilfrid Laurier University

The primary authors of this report are Julie Allison, Brendan Wylie-Toal and Linda Varangu. For further information on this report please contact Linda Varangu at Linda@greenhealthcare.ca . This report was prepared in August 2010.

Table of Contents

1.0 Introduction

Ontario is fortunate to be home to some of the most productive agricultural lands in Canada. Despite this endowment we import four billion dollars more food than we export.[i] According to a 2005 study for Waterloo Public Health, a significant quantity and variety of food that can be grown in Southwest Ontario is imported and has travelled, on average, about 4,500 kilometers to get to this region.[ii] The Ontario government has recognized this problem and is taking steps to support farming communities surrounding the Greater Toronto Area. It is investing twenty-four million dollars over three years to develop the logistics to get more Ontario-grown food into the province's schools, hospitals, food service companies and other institutions.[iii] The government's position is that having these institutions become large scale procurers of local foods will have four primary benefits. First, it will ensure a stable market for local sustainable products. Second, it will provide consumers with more local food choices. Third, it will reduce environmental harm from shipping food unnecessary distances. Finally, it will retain more money in the local economy.[iv] Healthcare providers represent a large share of the institutional market for local food. With 30,000 hospital beds at close to 100% occupancy rates[v], Ontario hospitals serve 32,850,000 meals to patients every year, and hospital cafeterias provide meals for employees and visitors. Sourcing hospital food has traditionally not taken into account where the foods are grown but, in the last few years, interest in purchasing local foods for healthcare facilities has increased.[vi]

Research to date has investigated the broad scale benefits of purchasing locally-grown food, which fall into three main categories: economic, environmental, and social/health. Furthermore, some studies have been conducted that deal with practicality issues associated with implementing local food policies at the institutional level. This project analyzes such past research and conducts a survey of Ontario health care facilities in order to collect vital information about the current state of hospital food systems. This information will be used to assess the practicality of incorporating more local food into patient and cafeteria meals, by conducting a cost-benefit analysis of such a change, and by assessing the resulting health, and environmental benefits.

2.0 The Practicality, Cost/Benefit, Health, and Environmental Benefits of Incorporating More Local Food into Patient Meals

2.1 Literature Review

2.1.1 Economic Benefits

Studies from the UK indicate that the group that will most directly benefit from policies based on using local food will be local farmers, who represent a struggling sector.[vii] Important related findings are that farms with below average incomes have trouble contributing to local communities[viii], and that local food systems help keep a higher percentage of farming and food dollars in local communities.[ix] The strong

secondary impacts of local food purchasing for local communities identified to date include: regeneration of market towns and deprived areas; incomes for local producers; greater trust and understanding between stakeholders[x] ; encouraging entrepreneurship; raising profiles of local businesses; greater access to healthy, safe food; supporting small business and enterprise and job creation; reducing external costs to both the purchasing authority and its constituents; halting the decline in rural services and food and farming infrastructure .[xi]

2.1.2 Environmental Benefits

The potential environmental impacts of purchasing local food include reducing air emissions and greenhouse gases (GHGs) due to the volume of fuel used to transport food.[xii] A study of fuel use and CO_2 found that procuring only 10% of 28 common food items locally translates into a reduction of 280 to 346 liters of fuel, and 6.7 to 7.9 million pounds of CO_2.[xiii] In the UK, it has also been found that a household's food behaviours directly impact GHG emissions at three stages: purchasing, handling and disposal. The researchers concluded that, since environmental considerations are currently not significant factors in food choices, means to help encourage movement to more sustainable choices must be identified.[xiv] Groups such as the American Dietetic Association also recommend developing responsible practices at the household level to support the ecological sustainability of the food system.[xv]

2.1.3 Social and Health Benefits

Research indicates that an important benefit of purchasing local foods is increased (?)food safety. Local food systems also have the ability to improve food security. It does soby raising the status of and access to local food, by strengthening local food supply chains, and by improving local level democracy and economic conditions in rural communities.[xvi] While the claim that local food is healthier is difficult to support, there is a substantial amount of empirical evidence that nutrition is improved by consuming local food because stored fruits and vegetables lose nutritional value with time.[xvii] This appears to be especially true of vitamins A, C, and E.[xviii]

2.1.4 Challenges and Opportunities

A literature review by the Ecology Action Centre in Nova Scotia examined notable global local food movements and found that a major issue with local food policies is inconsistent supply and pricing of food due to seasonality. They also found that local farmers tend to be loosely organized, which creates coordination and supply issues.[xix] A UK study led researchers to conclude that medium-sized suppliers/distributors should be utilized, sometimes in association with smaller providers. The main advantages of medium-sized suppliers were many; unlike small suppliers, most are already audited and accredited; they can provide bulk consignments of local produce and thus offer competitive prices; they can employ quality control staff; they are more flexible than large suppliers. This study also found that hospitals with their own kitchens more easily incorporate local foods because they have the capacity to receive food directly from farmers. The survey also found that a voluntary approach is unlikely to achieve local food objectives since everyone will not share the passion and energy to create these changes.[xx]

2.1.5 Local Food Efforts around the World

In the mid 2000s, the UK undertook the Hospital Food Project to test the practicality and feasibility of implementing sustainable food procurement policies in their hospitals. The success of the project was mixed, with some hospitals having an easier time implementing local food policies than others due to money and time constraints. [xxi] More recently some hospitals in this project have reported that they have exceeded their target of sourcing ten percent of foods locally.. [xxii]

In Brazil, local food systems are used to strengthen food security and improve rural economic conditions. The Brazilian government also works to ensure that local farmers benefit directly from these efforts. Initiatives such as promoting direct milk and crop purchases have provided rural Brazilian communities with more stable food prices, with the basis for creating small farmer cooperatives, and with increased access to safe, higher quality food for consumers. [xxiii]

In the US, several Universities and government bodies, such as the San Francisco Department of Public Health, have created local food systems as joint efforts between students, professors, and professionals (such as chefs).[xxiv] As well, the US Department of Agriculture (USDA) has created a program called Farm to School, which seeks to provide local food to schools across the country.[xxv] A 'Hospitals for Healthy Food Pledge' that supports local sustainable foods was signed by over two hundred and eighty US hospitals.[xxvi] The movement is facilitated by a local food for healthcare working group.

In Canada, the creation of a national action plan for food systems is challenging due to the nation's geographic, social and political features.[xxvii] Thus, most of the momentum in local food systems has been at a regional level. For example, the University of Toronto and the City of Toronto have both created local food procurement policies that aim to source ten percent of food locally, taking advantage of the vast green belt that surrounds the city.[xxviii] The Region of Waterloo Public Health has shown leadership in exploring and supporting the issues surrounding local foods.[xxix] Several hospitals in Ontario, including St. Mary's General Hospital in Kitchener, have hosted local food markets to teach and promote health and to show strong environmental leadership.[xxx]

3.0 Local Food for Healthcare Survey Results

The Canadian Coalition for Green Health Care (CCGHC) conducted a high level survey of Ontario health care facilities in order to assess the opportunities that exist to incorporate more local food into the food services in health care. Specifically, the objective of the survey was to assess the practicality, cost/benefit, health, and environmental benefits of incorporating more local food into patient meals. The survey was developed by the CCGHC, and information was drawn from academic research and in consultation with the Local Food Constellation and academic researchers from University of Guelph and Wilfrid Laurier University. Actual survey questions are provided in Appendix 1.

A description of the Local Food Constellation and the academic researchers is available in Section 4. The survey was trialed at St. Mary's General Hospital in Kitchener, Ontario.

3.1. Background

The survey was sent to 50 Ontario health care facilities. Each facility was contacted by phone and asked to participate, and the survey responses were collected and organized using Survey Monkey. In order to determine the food systems of all health care facilities, both long term care (LTC) facilities and general hospitals were surveyed: 25 LTC and 25 hospitals. The facilities were selected in order to represent each of Ontario's 14 local health integration networks (LHINs), and to span a wide range of sizes, form facilities as small as 20 beds, to those as large as 800+ beds.

The response rate for the survey was very strong. From the 50 surveys sent out, 33 facilities replied (66 percent response rate). From those 33 respondents, 19 were hospitals, 13 were LTCs, and one was unnamed. The survey respondents represent a total number of 5,127 general hospital beds and 2,216 LTC facility beds. Provided these facilities were at full occupancy (which they often are), the respondent pool represents approximately 8,040,585 patient meals served per year. The list of all the respondents is provided Table 1.

Table 1: Survey Respondents

Survey Respondents	
Hospitals (# beds)	**Long Term Care (# residential beds)**
Red Lake Margaret Cochenour Memorial Hospital (18)	Bobier Villa (57)
Grey Bruce Health Services (214)	Golden Plough Lodge (152)
Carleton Place & District Memorial Hospital (22)	St. Lawrence Lodge (240)
Geraldton District Hospital (49)	The Pines Long Term Care Home (160)
Arnprior and District Memorial Hospital (44)	Macassa Lodge (270)
Windsor Regional Hospital (306)	Vera Davis Centre (65)
Groves Memorial Community Hospital (55)	Nisbet Lodge (103)
Royal Victoria Hospital (299)	Albright Manor (231)
Trillium Health Centre (734)	Sunnyside Home (251)
Cambridge Memorial Hospital (155)	Huron County Home for the Aged (120)
Pembroke Regional Hospital (178)	Hillsdale Estates LTC (300)
Quinte Healthcare (202)	Rockwood Terrace (100)
UHN- University Health Network (729)	Wellington Terrace Long Term Care (176)
Guelph General Hospital (181)	
Grand River Hospital (477)	
Mount Sinai (339)	
Kirkland Lake District Hospital (62)	
St. Joseph's (London) (898)	
St. Mary's (156)	

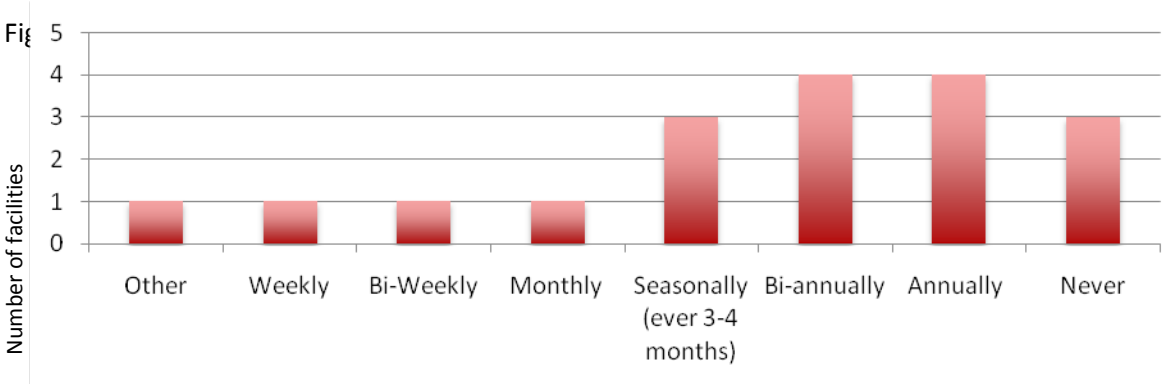
3.2 Food Systems

In order to assess the practicality of incorporating more local food into patient and cafeteria meals it is important to understand how hospital food systems operate. The survey shed light on the current situation in Ontario hospitals. Results are broken down by facility type (ie: hospital vs. LTC) and by patient vs. cafeteria meals. The latter distinction is important since patient and cafeteria meals are prepared in separate kitchens. The following are survey results from questions regarding menus, food preparation methods, the quantity of fresh food prepared, and kitchen equipment.

3.2.1 Menus

Hospitals menus for patients were changed infrequently, as Figure 1 indicates. However, the menus in cafeterias were changed more frequently: nine of thirteen facilities (69%) vary their menu at least twice per year.

Long term care facilities had the shortest menu cycles, twelve of thirteen facilities (92%) change their menus at least twice per year.



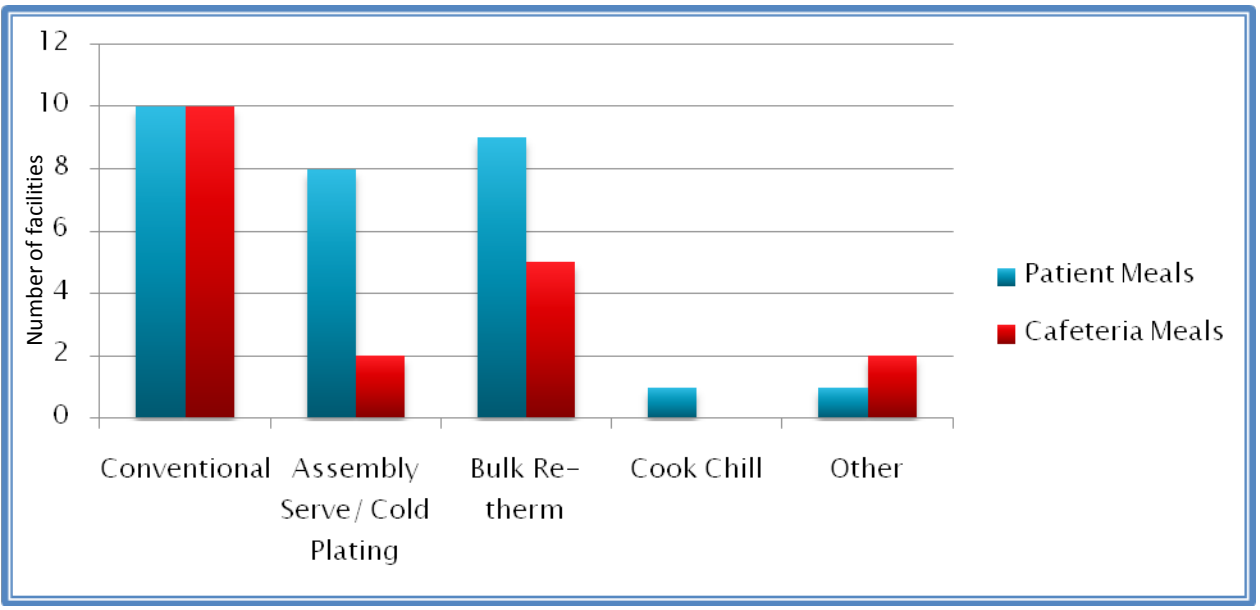
3.2.2 Food Preparation

There are a variety of food systems which can be used to prepare food within health care institutions. Conventional cooking is the preparation of foods from raw, or minimally processed ingredients. In other words, meals prepared from scratch. Alternatively, there are a variety bulk food systems used by health care facilities, where food is cooked off-site and either assembled or re-heated on-site. These systems include assembly –serve/cold plating, bulk-retherm, and cook chill preparation methods.

In hospitals, patient meals are prepared using a combination of conventional and bulk methods, as Figure 2 illustrates. Cafeteria meals are primarily prepared using conventional methods, although bulk systems are used in several cases.

With LTCs, twelve of thirteen facilities (92%) reported using conventional methods to prepare meals for their patients.

Figure 2: Meal Preparation Methods in Hospital Food Systems



3.2.3

Fresh Food

There are a variety of food systems which can be used to prepare food within health care institutions. Conventional cooking is the preparation of foods from raw, or minimally processed ingredients. In other words, meals prepared from scratch. Alternatively, there are a variety bulk food systems used by health care facilities, where food is cooked off-site and either assembled or re-heated on-site. These systems include:

- assembly –serve/cold plating: reserved for cold menu items, individual servings are prepared from bulk bags of pre-packaged foods. For example, a 1 kg bag of egg salad sandwich filling will be used to assemble egg salad sandwiches.
- bulk-retherm: reserved for hot menu items, frozen and pre-prepared food is placed on insulated trays and then reheated for serving in specialized carts or ovens.
- cook chill preparation methods: similar to bulk-retherm, but the frozen, pre-prepared foods are prepared on-site for re-therm at a later time.

Table 2 reports the percentage of both patient and cafeteria meals that are prepared from raw or minimally processed ingredients. Table 3 reports the percentage of LTC patient meals prepared from raw or minimally processed ingredients. Red denotes serious concerns, pink denotes moderate concerns, and green denotes positive results.

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With LTCs, twelve of thirteen facilities (92%) reported using conventional methods to prepare meals for their patients.

Table 2: Fresh Food in Hospital Meals

Patient Meals

Percentage prepared from raw or minimally processed ingredients	0%	1%-25%	25%-50%	50%-75%	Over 75%	Response Count
No. of Respondents	5	5	5	1	3	19

Cafeteria Meals

Percentage prepared from raw or minimally processed ingredients	0%	1%-25%	25%-50%	50%-75%	Over 75%	Response Count
No. of Respondents	0	5	3	3	2	13

Table 3: Fresh Food in the Patient Meals of Long Term Care Facilities

Patient Meals

Percentage prepared from raw or minimally processed ingredients	0%	1%-25%	25%-50%	50%-75%	Over 75%	Response Count
No. of Respondents		1	3	5	4	13

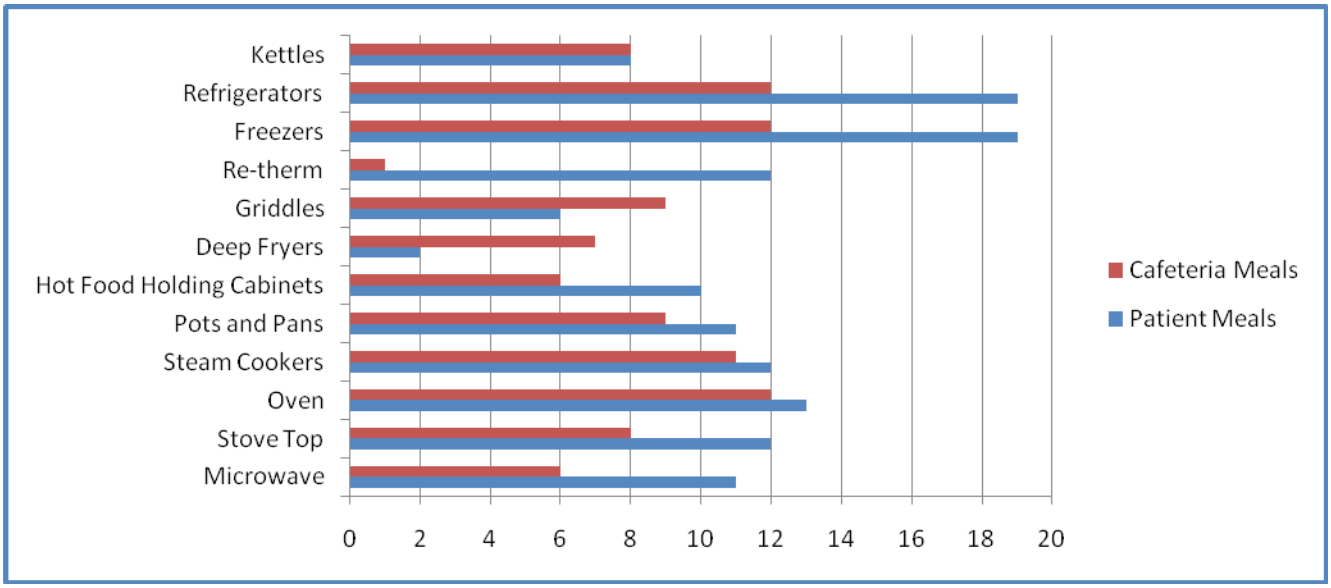
3.2.4 Kitchen Equipment

The type of kitchen equipment used to prepare meals is an important consideration when evaluating a facility's capacity to prepare fresh, local food. Figure 3 illustrates the types of equipment hospital have in their patient and cafeteria kitchens.

In general, the patient kitchens of hospitals are poorly equipped. For example, twelve of nineteen OR nearly two thirds (63%) of facilities had equal numbers of retherm systems and stoves. Vital kitchen equipment, such as stoves, ovens, and pots and pans, are absent in many/these hospitals. However, cafeteria kitchens appear to be well equipped. Essential equipment, such as ovens, fridges, and freezers were present in all facilities, while stoves were present in eight facilities. Having cafeterias with cooking equipment is important for facilities that do not have the capacity to prepare foods for patient meals. In some cases, cafeteria equipment can be used to prepare patient foods.

The patient kitchens of LTCs were very well equipped. All thirteen surveyed facilities reported having essential kitchen equipment such as stoves, ovens, steam cookers, pots/pans, fridges, and freezers.

Figure 3: Equipment Used to Prepare Patient and Cafeteria Meals in Hospitals



3.3 Food Issues, Benefits and Barriers

In order to assess what factors contribute to Food Service Managers' decision making, the survey asked several questions about food related issues, from food safety to the benefits and barriers to procuring more local food. The following is a summary of the results.

3.3.1 Food Issues and their Impact on Decision Making

The survey investigated what issues impact Food Service Managers' decision making when purchasing foods. Statistics are based on a sample size of thirty-three facilities. A list of definition of survey terms are in the appendix along with the survey tool.

- Issues most important to health care facilities were: Safety (**100%**); Nutrition (**97%**); sensory qualities, (**97%**); and "Low cost for food" was also rated high, (**88%**).
- The issues least important to health care facilities were: naturalness, (**15%**); origin, (**24%**); fairness, (**30%**). The same trend was observed for cafeteria food.
- Only 39% of health care facilities felt that 'environmental impact' was important The same concern was only slightly more prevalent for cafeteria meals, at fifty-three percent.

3.3.2 Benefits of Local Food

Respondents were asked what the perceived benefits are for purchasing more local food. The top three benefits listed by thirty-two hospitals were: supporting local economy, (**69%**); providing patients fresh, raw foods, (**63%**); strengthened local food supply chain, (**56%**); and improved meal satisfaction (**50%**). The full results are displayed in Table 4.

Table 4: The Perceived Benefits of Local Food.

Benefits	Response count	Benefits accrued to:			
		Patient	Facility	Envt	Local Economy
Supporting local economy	22				√
Providing patients with fresh, raw foods	20	√			
Strengthened local food supply chains	18				√
Improved meal satisfaction	16	√			
Reduced carbon footprint	14			√	
Creating relationships with local farmers	12				√
Improved rural services and food and farming infrastructure	12				√
Improved nutrition	11	√			
Reduced transportation costs associated with delivering product to facility	8		√		
Supports the 'Health Promoting Hospitals' model	7		√		

Benefits	Response count	Benefits accrued to:			
		Patient	Facility	Envt	Local Economy
endorsed by WHO					
Reduced solid wastes	6		√	√	
Helps educate patients, visitors about healthy food	5		√		
Secure access to safe and nutritious food	5	√			
Support Hospital Mission	4		√		

3.3.3 Barriers to Procuring Local Food

The respondents were also asked to identify any perceived barriers to purchasing more local food. The top four barriers to purchasing local food identified by thirty-two respondents were: seasonal availability of local food 22/32 (69%); added labour needed to prepare the food, 20/32 (63%); lack of availability through current suppliers 22/32 (69%); lack of availability in some food groups, 20/32 (63%); 'complying with regulations' (19/32, or 59%); and 'too expensive to purchase' (18/32, or 56%. The full results are described in Table 5.

Table 5: Perceived Barriers to Purchasing More Local Food

Barriers	Barriers to:			
	Response Count	Facility	Producers	Suppliers
Lack of availability through current suppliers	22			√
Seasonal availability of local food	22		√	
Added labour needed to prepare the food	20	√		
Lack of availability of local food in some food groups	20		√	

Barriers	Barriers to:			
	Response Count	Facility	Producers	Suppliers
Complying with food safety regulations	19	√	√	
Too expensive to purchase	18	√		
No delivery available	17		√	√
Purchasing model favours low costs	15	√		
Quality concerns	13		√	√
Too difficult to identify and track food that is produced locally	13		√	√
Hospital needs a local food policy	9	√		
No documented evidence that local food is beneficial to patient health	7	√		
Too many other priorities	7	√		
Existing contract is set over long term (i.e. 5- 10 years)	6	√		
No equipment for cooking/preparing food	5	√		
Insufficient space for assembling/preparing foods	5	√		
Hospital's supply policy	5	√		
Concern about vectors	2	√		
Insufficient storage	2	√		
No dietician on-site	1	√		

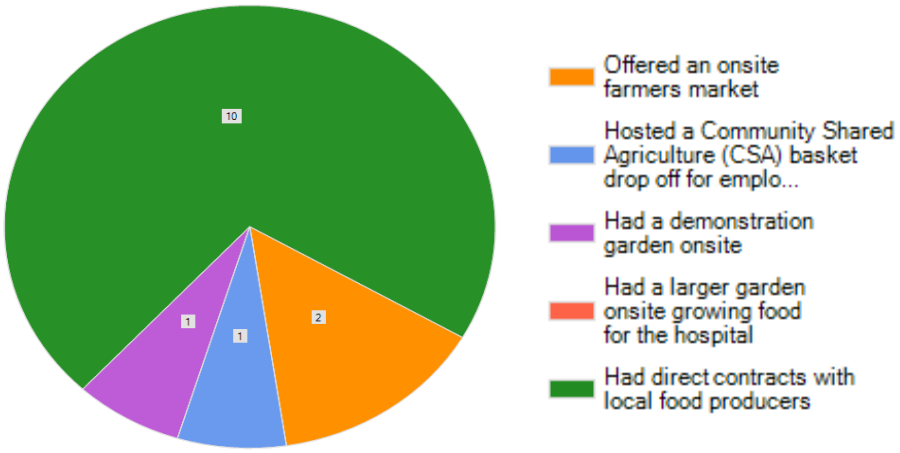
3.4 Current State of Local Food in Health Care

3.4.1 What are Health Care Facilities Doing to Promote Local Food?

Respondents were asked what current or past initiatives have taken place to promote local food. Overall, few innovative initiatives have taken place, only one-third (**33%**) of health care facilities have undertaken some initiative to integrate local food into the facility's food supply. Even fewer facilities,

only two, (**6%**) conducted local food initiatives beyond having direct contracts with producers. The full results are illustrated in Figure 4.

Figure 4: Current and Past Local Food Initiatives



3.4.2 Local Food Policies

Respondents were asked whether or not their facility had local food policies. They were also asked if they know of any food suppliers with local food policies.

No hospital had a local food policy. Furthermore, the absence of a policy was perceived as a barrier by 9/32 (**28%**) of facilities. No hospital knew of a food supplier with a local food policy.
Long Term Care facilities, on the other hand, have set a different precedent. Of the 13 LTC respondents, 3 (23%) had local food policies and 5/13 (**39%**) knew of suppliers with local food policies.

3.4.3 Local Food Purchased Outside of Food Service Contracts

Food Service Managers were consulted in the design stage of the survey. At this time, it was revealed that many hospitals purchase local foods outside of their food service contracts since local food options are not readily available through suppliers. Figure 5 illustrates the characteristics of local food purchased outside of food service contracts by health care facilities.

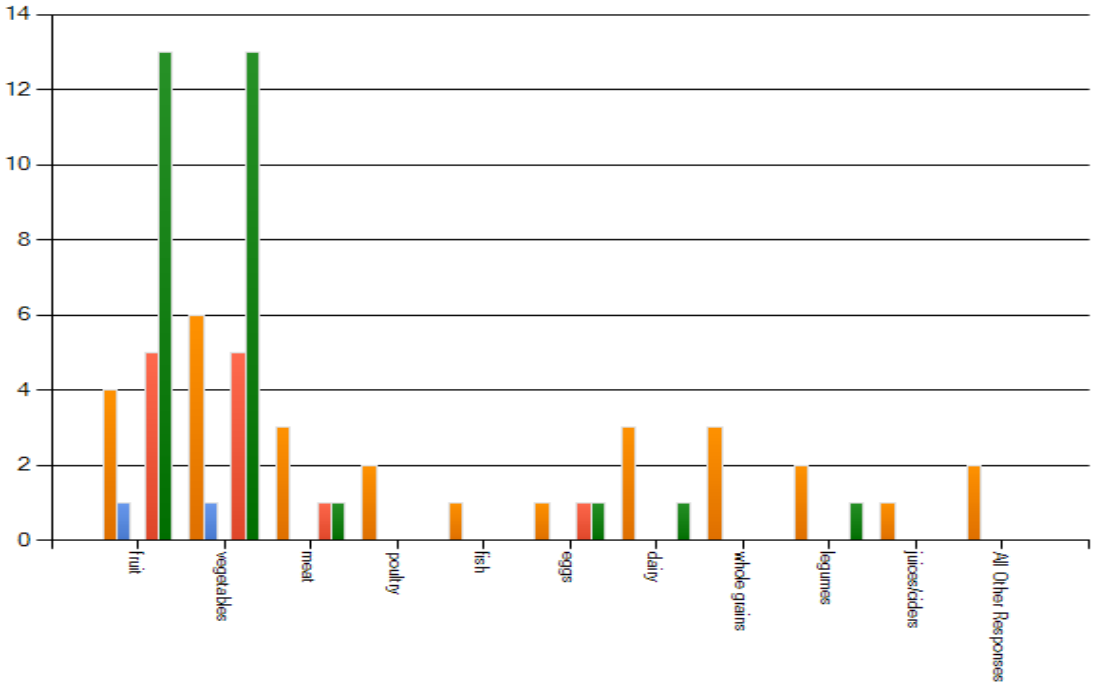


Figure 5: Characteristics of Local Food Purchased Outside of Food Service Contracts

3.5 Implications of Survey Results

3.5.1 Practicality of Integrating Local Food into Food Supply

Both Long Term Care facilities and hospitals were surveyed because of a suspicion that LTC facilities would prepare more fresh food and thus be more capable of using more local food. This expectation arose for two reasons. First, while developing the survey, a few Food Service Managers at hospitals indicated that food service budgets shrunk over time. Such cut-backs force hospitals to increase efficiency (ie: switch to bulk food systems). Second, patients spend longer periods of time at LTC facilities. As a result, patients at LTCs eat more meals during their stay than the average hospital patient. Such a high exposure to the food services of a facility would be hard to bear if the food quality

was poor. The results of the survey confirmed this suspicion: Long Term Care facilities are in a better position to procure more local food. In general, this is because a large percentage of the meals are prepared fresh, onsite, in well equipped kitchens. Furthermore, since LTCs change their menus more frequently than hospitals, they are able to accommodate fluctuating seasonal food availability.

On the other hand, hospitals are in a poor position to use more local food for patient meals. From the hospitals surveyed, 8/19 (42%) have limited to no capacity to prepare fresh food. This is a result of the shift in food services away from conventional food preparation to bulk food systems. As hospitals move away from preparing food conventionally, they are losing the equipment needed to prepare fresh food. Additionally, their long menu cycles make it difficult to accommodate seasonal food supplies. However, the major issue is that the bulk food systems used by hospitals shift the onus onto food suppliers to procure local foods. Individual hospitals have limited flexibility in deciding to use local foods for patient meals since the majority of hospital meals are prepared off-site. With this in mind, a logical next step for hospitals will/would be to follow the lead of the Long Term Care facilities that have implemented local food policies. By putting local food language into their contracts they can direct their food service providers to use local ingredients.

3.5.2 Cost-benefit Analysis

Determining the net cost/benefit of local foods was not possible with the survey because of confidentiality issues associated with food service contracts. However, the survey does indicate that a few financial issues need to be addressed. First, the concept of preparing local food brings with it the perceived increase in labour and costs. The concern about increased labour is founded on the rational that preparing food from scratch requires more personnel than preparing meals with bulk food systems. With respect to costs, it was an important perceived barrier (rated fifth of twenty barriers), and food affordability was the fourth highest concern affecting decision making. However, in the whole life costing of food, using more local food may not increase costs. When food is prepared from fresh ingredients, the sensory qualities often increase: fresh food tastes better. Such improved meal satisfaction could result in less organic waste, which would reduce waste disposal costs. A total cost comparisons of whole food systems is needed, but was not assessed in this study.

3.5.3 Health and Environmental Benefits

While the survey respondents acknowledge the health and environmental impacts of local food, these factors do not appear to influence food purchasing decisions. Essentially, food is food. The intangible social and environmental benefits of local food are not integrated into food purchasing decisions. The implication of this mentality is that local food will be chosen only when it is equal to conventionally sourced food in price, safety (certifications), nutrition, and appeal to the senses (taste, texture, appearance, and fragrance).

4.0 Mentoring the Movement: The Local Food for Health Care Constellation

4.1 Local Food for Health Care Constellation

For the Trillium Local Food for Health Care Project, a Local Food for Health Care Constellation was set in place. The Constellation members are required to meet the following criteria:

1) Attend the necessary conference calls and respond to electronic communications requests that would be scheduled when need be during the months of June-August
    a. Due to the busy schedule of the constellation members, most of the meetings were held electronically, with one conference call meeting.

2) Provide any comments and opinions on the Trillium survey that is sent to Ontario Hospitals and Long Term Care Facilities

3) Review the survey results and recommend potential next steps

4) Comment on Health Care without Harm's Health Food in Healthcare Pledge (http://www.noharm.org/lib/downloads/food/Healthy_Food_in_Health_Care.pdf) to see if this is a potential interest for Ontario/Canadian hospitals

5) Participate in a focus group for the OMAFRA funded Local Food for Health Care project

The Chair of this Constellation is St. Mary's Hospital. All members of the Local Food for Health Care Constellation are knowledgeable parties that are informed about the Food Service Industry, and who are keen on the topic of local food for health care. The short biographies written below overview the key individuals who have helped us better understand the current position of food systems within Ontario Health Care Institutions.

4.1.1 Constellation Members

The following individuals were the leaders of the constellation activities:

Tammy Quigley- Ontario, Canada
Tammy Quigley is the Director of Support Services at St. Mary's General Hospital and has served as the Chair of the Local Food for Health Care Constellation. She has a keen passion for local foods and has been a key asset to the development of this project. Tammy has been very helpful at outlining opportunities and benefits available at St. Mary's General Hospital when it comes to implementing local food, creating opportunities for research collection at the facility, and assisting in survey development. Tammy is the chair of the Food Quality Committee at St. Mary's General Hospital which focuses on

evaluating the food and assessing if it meets the various patient needs and overall satisfaction. As a major advocate for local foods for Health Care, Tammy plans on continuing to achieve St. Mary's goals geared towards to local food in years to come by pursuing the idea of "Local Food Days" in partnership with The Working Centre in Kitchener, Ontario, and possibly allowing St. Mary's to serve as a site where Community Shared Agriculture (CSA) baskets can be dropped off for pick up by community members.

Joanne Bays- British Columbia, Canada

Joanne is a population health nutritionist and a food policy consultant with special interest in food localism and its impact on personal, community, and environmental health. As the first woman within a health authority to hold the post of Regional Manager of Healthy Communities and Community Food Security, Joanne has contributed to the advancement of food security and sustainable food systems policy, research and practice within the health, agriculture and education sectors throughout British Columbia. Joanne currently Co-Chairs the Vancouver Food Policy Council and is a Co-Investigator in a community based research project exploring the impact of school food systems on climate change. Over the past two years Joanne has lead the development of a province wide Farm to School Network linking farm to school activity in urban, rural, remote, and aboriginal communities. Together with Canadian colleagues, Joanne is building momentum towards a Canadian Farm to Cafeteria Network.

Leslie Carson- Ontario, Canada

Leslie Carson is registered dietitian who works as St. Joseph's Health Centre in Guelph, Ontario as their Food Service Manager. Leslie's passion for locally sourced food has been adopted by the facility, which has benefited from her enthusiasm. St. Joseph's is a leader in local food for health care and continually sources fresh produce and local meats from local suppliers around the area. Leslie has assisted the project by allowing observation at St. Joseph's in order to contract valuable and useful information that has been used in case studies and with survey development.

Elisa Wilson- Ontario Canada

Elisa Wilson is a registered dietitian who is currently working as a Dietary Advisor for the Ministry of Health and Long-Term Care, Performance Improvement and Compliance Branch. She has recently completed her MSc, Food & Nutrition at Brescia University College, UWO. Her thesis was entitled: Going Green in Healthcare Foodservices: A survey of beliefs, behaviours and attitudes regarding environmentally-friendly initiatives. She currently has had two articles accepted (one with minor revisions) for publication by the Canadian Journal of Dietetic Practice and Research which focus on local foods for health care. Elisa has been a leader in the local food for health care movement and has recently presented her information, opinions and research findings at a Dietitians of Canada Conference. Elisa has contributed her knowledge on this topic to the project and has assisted in survey development.

Anne Marie MacKinnon- Ontario Canada

Anne Marie MacKinnon is a registered dietitian working at William Osler Health Centre in Brampton, Ontario as the Director of Patient Services for Carillion Inc. She has proved to be a great resource during research collection and project development. Anne Marie has assisted in survey formulation and has readily and enthusiastically forwarded her opinions and thoughts on local food for health care during the course of the project.

5.0 Education and Communication Activities

5.1 Collaboration with Local Food Professionals, Venders and Suppliers

The Local Food for Health Care Project has been made possible by many individuals and organizations. Firstly, St. Mary's General Hospital in Kitchener, Ontario must be commended for their on-going support and openness to research observation throughout the project. In addition to research collection, St. Joseph's Health System in Guelph served as a primary facility and exemplary leader modeling local food for health care in a health care facility within Ontario. A large thanks goes out to the University academics at University of Guelph and Wilfred Laurier University. The academic team provided continuous support and assistance during the formulation process for the Trillium Survey. A thank-you to the YMCA Eco Internship Program, for granting the Canadian Coalition for Green Health Care with a student intern for the summer who was responsible for the fulfilling the role of the Local Food for Health Care Coordinator. Another major collaborator involved in the project was My Sustainable Canada. This organization is a non-profit organization in Waterloo, Ontario that has been a major contributor and has acted as a liaison between the Eco-Intern and the Canadian Coalition for Green Health Care. Understanding the Food Service industry proved to be a barrier at the beginning of the project, but constant help from Food Service Pioneers such as Aramark, the Compass Group and Sedexo made this complex industry easier to understand. The support and knowledgeable input received from key individuals from Food Link Waterloo Region, OMAFRA and the Region of Waterloo Public Health during survey formulation and report writing was greatly appreciated. A full summary of all the project collaborators is provided in Appendix 1.

5.2 Information Sessions

Two information sessions were held to discuss the issue of local food in health care:

Title of Event: Eco Care, London ON October 18 – 20, 2009 at
Agenda: (see Agenda at: http://www.ecocarecanada.ca/conference/2009/pdfs/agenda.pdf
Title of Presentation: *Exploring Opportunities for Farmer's Markets in Hospitals*
Mary MacKeighan, Executive Director, Opportunities Waterloo Region
John Derschner, St Mary's General Hospital
Sanjay Govindaraj, Region of Waterloo Public Health

(see Presentation at: http://www.ecocarecanada.ca/conference/2009/presentations.htm)
Approximate # in attendance: 40 people

Title of Event: Livable Waterloo Region: Waterloo, ON August 21, 2010
Agenda: See agenda at: http://www.wonderfulwaterloo.com/showthread.php/513-Livable-Waterloo-Region-August-21-2010
Title of Presentation: *Local Food for Health Care*.
Brendan Wylie-Toal, Program and Research Manager, Canadian Coalition for Green Health Care.
(See video and presentation at: http://www.wonderfulwaterloo.com/showthread.php/629-Brendan-Wylie-Toal-Local-Food-For-Health-Care)
Approximate # in attendance: 30 people

5.3 Webinar

One webinar was hosted and sponsored by the Canadian Coalition for Green Health Care:

Title: Local Food for Health Care Webinar
Date: August 23, 2010
Title of Presentation: Assessing the Opportunities for Local Food in Health Care (the slides presented during the webinar are attached in Appendix 3
Number of people in attendance: 23 people (List of those who requested to attend/attended is available in Appendix 2)

Discussion from the Webinar provided the following insights:

i. There needs to be a baseline developed for the waste generated from the different wards and patient types in order to assess if fresh local food can reduce the wastage.
ii. A patient perspective should also be assessed, to "to quantify the desirability of fresh local foods"
iii. Environmental aspects of local food need to be further assessed.
iv. Sensory qualities of food were rated highly desirable by the respondents. This information can be used to help promote fresh local foods to the administration.
v. Differences in labour costs between foods prepared onsite and outsourced preparations need to be considered and quantified.
vi. Different types of foods which are easy target for local foods should be considered. For example,
    a. Fruits and vegetables
    b. Baked goods
    c. Meats and Dairy
    d. Specialty diets
vii. In Ontario, may consider foods which fall under the Marketing Boards to be more locally obtained. These include:
    a. Milk

b. Eggs
c. Chicken
d. Turkey

viii. Food from suppliers is an unknown, as they currently don't keep track of where the foods come from. Food contracts should start to ask for or encourage tracking.

ix. Food safety questions such as purchasing local meats are still a concern.
   a. There was a report that OHA advised hospitals to only purchase from federally inspected abattoirs, where as provincially certified facilities are apparently equally stringently certified.
   b. Fresh vegetables and fruits are ok, as long as they are not previously chopped.

x. Need to assess the policies which have been put into place that have resulted in our current system. For example, have there been provincial policies which have forced the movement away from food prepared onsite at hospitals?

xi. Obtain samples of food policies from health care facilities
   a. Halton Region

xii. Long term care facilities should be studied further to determine why they are further ahead on this issue than the hospitals

xiii. Collaborate with the private sector to better understand the potential
   a. GFS is currently doing some analysis on local foods in Ontario
   b. Sysco is currently doing a pilot in BC with a local hospital

xiv. 'EnTrace' has started a pilot regarding the traceability of foods. This is a provincially funded body.

xv. For LTC there is apparently a guideline for menu repeats. Dieticians are scrambling to rotate the menus as required, provide the variety and are challenged to find appropriate foods.

xvi. Patient foods are to be obtained from the very low budget of $7.31 (per day per resident. This cost is challenging to meet under any circumstance.

xvii. NS Ecology Action Centre has just completed a report on local foods.
   a. http://www.ecologyaction.ca/files/images/file/Food/FM%20July4%20_final_long_report.pdf

xviii. Region of Waterloo has a number of reports related to local foods on their web site.
   a. Food Miles: Environmental Implications of Food Imports to Waterloo Region

xix. There is a conference on the 'Future of Food in Healthcare', Ottawa ON. October 14- 15, which will include a local food component.

xx. Local food for Health Care session will be held at EcoCare 2010 (see draft agenda at:
   a. http://www.ecocarecanada.ca/conference/2010/pdfs/Agenda.pdf)

xxi. Escarpment Foundation has a list of local farmers available on their web site:

xxii. May want to consider the top 12 foods to promote locally and start with those.

5.4 Expansion and Continuation of Local Food for Health Care Initiative

While this study established valuable information on the practicality, cost-benefit, health, and environmental benefits of incorporating more local food into hospital meals, it is important that efforts in this field continue. The following activities are currently underway:

- The Canadian Coalition for Green Health Care is working with the University of Guelph, and The Ontario Ministry of Agriculture, Food, and Rural Affairs on a similar study. The project will look at this issue in much more details, and is funded for 3 years.
- The Coalition will continue to build on the contacts and relationships initiated in the Trillium funded study
- St Mary's General Hospital will be the involved as case study and pilot site for future efforts to incorporate more local food into patient and cafeteria meals.

In addition to the presentations mentioned above, the Canadian Coalition for Green Health Care is scheduled to present at the following conferences and events:

- Presentation at the Waterloo Food Systems Roundtable in September, 2010
- Future of Food in Healthcare, Ottawa ON. October 14- 15. (see registration information at: www.gohfs.org/registration)
- Local food for Health Care session at EcoCare 2010 (see draft agenda at: http://www.ecocarecanada.ca/conference/2010/pdfs/Agenda.pdf)

Finally, the Local Food for Health Care Constellation will continue to grow as a group. This growth will occur as the Coalition continues to promote the issue of local food in health care, network with other local food professionals. Further, the Ontario Hospital Association has offered their Sharepoint site to continue collaborations and discussions, and act as a repository for resources and information, which will allow widespread dissemination of information to the health care sector. All reports and documents will be available on the Coalition Web site.

7.0 Conclusions

The Local Food Movement will continue to flourish within the coming years. It is important to not only view these movements as personal endeavors, but also as those that, if implemented correctly, will allow institutions, such as schools and hospitals, to benefit. By implementing local foods within society we will be able to support our local economy and local farmers, decrease our carbon footprint, provide fresh and nutritious food to our community and develop have a greater sense of pride about the food we eat, because it has been grown close to home.

Appendices

Appendix 1: Local Food for Health Care Questionnaire

Thank you for agreeing to participate in our study. The results will contribute to a project aimed at identifying the practicality and feasibility of increasing the procurement of local foods by hospitals. All data collected will be analyzed in aggregate. Information specific to your hospital will not be seen by anyone other than the researchers. However, the overall findings of the study will be shared with you if you wish. They will also be posted on our website for easy access by all interested health care providers.

Please begin by providing us with your hospital's name and city. This will allow us to use other sources to obtain basic information about your hospital (such as number of beds, type of hospital, etc.) that we need to categorize and segment the aggregated data.

Hospital Name:_____

City:_____

1. Does your role at the hospital involve the planning and purchasing of:

☐ Patient meals

☐ Cafeteria meals

☐ Both

SURVEYMONKEY WILL BE SET UP SO THAT:

A) **THE RESPONDENT WHO ANSWERS "BOTH" TO QUESTION 1 WILL BE ASKED <u>ALL</u> OF THE FOLLOWING SURVEY QUESTIONS. (total, including #1 = 18 questions)**

B) **THE RESPONDENT WHO ANSWERS "PATIENT MEALS" WILL BE ASKED THE FOLLOWING QUESTIONS AND ONLY A "PATIENT MEALS" COLUMN WILL BE PROVIDED IN CHARTS WHERE THERE ARE CURRENTLY BOTH PATIENT MEAL AND CAFETERIA MEAL COLUMNS: 2, 3, 6, 7, 8, 9, 11, 12, 13, 15, 16, 17, 18. (total, including #1 = 14 questions)**

C) **THE RESPONDENT WHO ANSWERS "CAFETERIA MEALS" WILL BE ASKED THE FOLLOWING QUESTIONS AND ONLY "CAFETERIA MEALS" WILL SHOW IN THE CURRENT DUAL COLUMN CHARTS: 4, 5, 6, 7, 8, 10, 11, 12, 14, 15, 16, 17, 18 (total, including #1 = 14 questions)**

2. Do you provide meal menus that allow your hospital patients to personalize their meal and snack choices?

   □Yes □No □Do Not Know

3. Whether or not your patients can personalize their food choices, how often are the meal and snack menus for your patients changed? (please check one)

   □ Never - the same offerings are always provided with only some daily variation

   □ Weekly – meal and snack menus are revised weekly

   □ Bi-Weekly – meal and snack menus are revised every two weeks

   □ Monthly - meal and snack menus are revised every four weeks or every month

   □ Seasonally – meal and snack menus are changed every 3-4 months or as the seasons change

   □ Other (please specify): _____

4. Who manages your hospital's cafeteria? (please check one)

   □ Hospital management

   □ External contractors (please specify who): _____

   □ Combination of above (please specify who): _____

   □ Other (please specify who): _____

5. How often are the meal and snack menus in your cafeteria changed? (please check one)

   □ Never - the same offerings are always provided with only some daily variation

   □ Weekly – meal and snack menus are revised weekly

   □ Bi-Weekly – meal and snack menus are revised every two weeks

   □ Monthly - meal and snack menus are revised every four weeks or every month

   □ Seasonally – meal and snack menus are changed every 3-4 months or as the seasons change

   □ Other (please specify): _____

6. What food service system(s) does your hospital employ?

FOOD SERVICE SYSTEM	**PATIENT MEALS** (check all that apply)	**CAFETERIA MEALS** (check all that apply)
Conventional (food prepared onsite from raw or minimally processed ingredients)		
Assembly Serve / Cold Plating		
Bulk Re-therm		
Cook Chill		
Other (please specify):		

7. What is the approximate percentage of meals that are prepared from raw or minimally processed ingredients?

PERCENTAGE PREPARED FROM RAW, OR MINIMALLY PROCESSED INGREDIENTS	**PATIENT MEALS** (check one)	**CAFETERIA MEALS** (check one)
0%		
1% to 24%		
25% to 49%		
50% to 75%		
Over 75%		

8. What type of equipment is used at your hospital to prepare patient and cafeteria meals :

EQUIPMENT	**PATIENT MEALS** (check all that apply)	**CAFETERIA MEALS** (check all that apply)
Microwave		
Stove top		
Oven		
Steam cookers		
Pots and pans		
Hot food holding cabinets		
Deep fryers		
Griddles		

Blancher		
Re-therm		
Freezers		
Refrigerators		
Kettles		
Other (please specify):		

9. At your hospital, how important are each of the following issues when food is purchased for use in patient meals?

   Decide whether each issue is "very or most important" OR "less or not at all important", then check the appropriate box.

Very or most Important	***Issues***	**Less or not at all Important**
	Naturalness (food is produced to meet certified organic standards, and is produced without modern technologies)	
	Taste and aroma (food is appealing to the senses)	
	Cost (a low cost for food is important)	
	Safety (consumption of food will not cause illness)	
	Convenience (food is easy to cook and/or consume)	
	Nutrition (healthy amounts and types of fat, protein, vitamins, etc.)	
	Tradition (preserving traditional consumption patterns is important)	
	Origin (where the agricultural commodities were grown/raised, and where it was produced/manufactured is important)	
	Fairness (all parties involved in food production equally benefit, including the humane treatment of animals)	
	Appearance (food looks appealing)	
	Environmental Impact (decrease the effect of food production and transportation on the environment)	
	Other (please specify):	

10. At your hospital, how important are each of the following issues when food is purchased for use in cafeteria meals?

    Decide whether each issue is "very or most important" OR "less or not at all important", then check the appropriate box.

Very or Most Important	***Issues***	**Less or Not at All Important**
	Naturalness (food is produced to meet certified organic standards, and is	

	produced without modern technologies)	
	Taste and aroma (food is appealing to the senses)	
	Cost (a low cost for food is important)	
	Safety (consumption of food will not cause illness)	
	Convenience (food is easy to cook and/or consume)	
	Nutrition (healthy amounts and types of fat, protein, vitamins, etc.)	
	Tradition (preserving traditional consumption patterns is important)	
	Origin (where the agricultural commodities were grown/raised, and where it was produced/manufactured is important)	
	Fairness (all parties involved in food production equally benefit, including the humane treatment of animals)	
	Appearance (food looks appealing)	
	Environmental Impact (decrease the effect of food production and transportation on the environment)	
	Other (please specify):	

11. Does your hospital have a policy regarding local food procurement? (*Please note: "Local" is defined as being from the Province of Ontario, or within 100 km of your facility.)*

    ☐ Yes (please describe your hospital's local food policy):

    _____

    ☐ No

    ☐ Don't know

12. Has your hospital done any of the following in the past two years:

    a. Offer an onsite farmers market
    b. Host a Community Shared Agriculture (CSA) basket drop off for employees
    c. Have a demonstration garden onsite
    d. Have a larger garden onsite growing food for the hospital
    e. Have direct contracts with local food producers

13. Do any of your major food suppliers have policies regarding the procurement of local food?

    ☐ Yes (please list which suppliers): _____

    ☐ No

    ☐ Don't know

14. Is your hospital part of a group purchasing organization (GPO) for patient meals?

 Yes (please provide the name of the GPO): _____

 No

 Don't know

15. Is your hospital part of a group purchasing organization (GPO) for cafeteria meals?

 Yes (please provide the name of the GPO): _____

 No

 Don't know

16. Does your hospital purchase local food outside of a food services contract?

 Yes (for all that apply, please indicate the source of the fresh, frozen or canned local food that is purchased for your hospital outside a food services contract):

Local Food Category	Source (check all that apply)					
	Grocery Store	Farmer's Market	Local Growers' Co-op	Direct from Local Growers	Fresh Produce Distributors	Other:
Fruit						
Vegetables						
Meat						
Poultry						
Fish						
Eggs						
Dairy						
Whole grains (i.e. breads)						
Juices/Ciders						
Legumes						

 No

 Don't know

17. From the list below, which benefits to purchasing local food do you feel apply to your facility (check all that apply)?

Benefits	Check all that apply
Increased satisfaction (ie: improved food quality) with food offerings among patients and/or cafeteria patrons	
Improved nutrition for patients and/or cafeteria patrons	
Increased ability to provide fresh, raw foods	
Reduced carbon footprint	
Reduced transportation costs associated with delivering the product to the hospital	
Reduced solid waste generated	
Strengthened local food supply chains	
Secure access to safe and nutritious food	
Increased support of local economy	
Supporting local farmers	
Increased likelihood for food to be used as a form of patient treatment	
Increased knowledge about the growing conditions of the food purchased (use of pesticides, herbicides, transportation conditions, etc.)	
Other (please specify):	

18. From the list below, which barriers to purchasing local food do you feel apply to your facility (check all that apply)?

Barriers	Check all that apply
Too expensive to purchase	
No documented evidence that local food is beneficial to patient health	
Added labour needed to prepare the food	
Lack of availability of local food in some food groups	
No delivery available	
Hospital does not have a local food policy	
Lack of availability through current suppliers	
Hospital's supply policy does not allow purchasing of local foods	
Quality concerns	
Seasonal availability of local food	
Purchasing model favours low costs	
Too many other priorities	
Existing food contract is set over the long-term (i.e. 5 to 10 years)	
No dietician on-site	
Insufficient storage	

Insufficient space for assembling/preparing the food	
Too difficult to identify and track food that is produced locally	
No equipment for cooking/preparing the food	
Concern about vectors	
Existing regulations	
Concerns about handling food/food safety risks	
Other (please specify):	

19. What is the likelihood that your hospital will purchase more locally-produced food in the next five years?

    High ☐ Medium ☐ Low ☐ No likelihood ☐

THANK YOU VERY MUCH FOR PARTICIPATING IN OUR SURVEY!

Would you be interested in receiving a copy of the overall study results? Yes ☐ No ☐

Would you be interested in participating in a webinar regarding this study? Yes ☐ No ☐

If Yes for either of the above, please provide your name and email address:

Name:_____

Email:_____

Appendix 2: Summary of the Organizations Working with the Coalition on the Local Food for Health Care Project

Sector/Organisation	Contact Information
Government	
Ontario Ministry of Agriculture Food and Rural Affairs	George Ferreira, PhD Program Lead, Community Economic Development Rural Community Development Branch Ontario Ministry of Agriculture, Food and Rural Affairs 1 Stone Road West, 4NW Guelph, ON N1G 4Y2 Tel: (519) 826-3278 Fax: (519) 826-4328 Website: www.reddi.gov.on.ca
Ontario Ministry of Health and Long Term Care	Elisa Wilson- Ontario Canada Performance Improvement and Compliance Branch
MITACS	Claudia Krywiak, Ph.D. Director, Business Development MITACS Inc. York Lanes, Suite 353 4700 Keele Street Toronto, ON M3J 1P3 Ph: 416.650.8440 Cell: 416.476.5569 Fax: 416.650.8448 Email: ckrywiak@mitacs.ca Web: www.mitacs.ca Web: www.mitacsaccelerate.ca
Region of Waterloo Public Health	*Marc Xuereb* Public Health Planner Region of Waterloo Public Health 99 Regina St S, 3rd Floor Waterloo, ON N2J 4V3 tel: 519.883.2004 x.5872 email: xmarc@region.waterloo.on.ca
Business	
FoodLink Waterloo Region	Peter Katona, Executive Director foodlinkwaterloo@bellnet.ca
ARAMARK	Louie Visentin, District Manager, ARAMARK Healthcare Louie_Visentin@aramark.ca
	Bryan Stewart

	National Marketing Director ARAMARK Healthcare and ARAMARK Senior Living Services 811 Islington Avenue, Toronto, ON M8Z 5W8 CANADA Phone: 416.255.6131 x 3326, Fax: 416.255.6628, Mobile: 416.996.5865 Email: bryan_stewart@aramark.ca
Sodexo	Chris Roberts Director of Corporate Citizenship, Sodexo Canada Tel: (905) 632-8592, ext 33260 Cel: (905) 401-1086 Chris.Roberts@sodexo.com
Compass Canada	Laurie Brager Director of Sustainability, Compass Group Cindy Harris, Senior Advisor, Communications 905 568 4636 x 432 cindy.harris@compass-canada.com www.compass-canada.com
St Josephs Health Care, GPO	Candace Bester 519 751 7096 CBester@sjhcs-gpo.com
HealthPro, GPO	Catherine Payne 905 568 3478 X 350 CPayne@HealthProCanada.com http://www.healthprocanada.com/
Food Policy Consultant British Columbia, Canada	Joanne Bays Population health nutritionist and a food policy consultant
NGO/ Association	
Canadian Dieticians Association	Lynda Corby -RD Leslie Whittington-Carter, RD Ontario Government Relations Coordinator Dietitians of Canada 519 762-0393 lwhitcart@dietitians.ca
Local Food Plus	Chris Alward Director of Operations 1965 Queen Street East, Suite 2 Toronto, ON M4L 1H9

	Tel: 416 699-6070 ext: 225 Email: Chris@localfoodplus.ca
GreenBelt	Kathy Macpherson Research and Policy Director 416 960-0001 ext. 305 Friends of the Greenbelt Foundation 68 Scollard Street, Suite 201 Toronto, Ontario M5R 1G2 www.greenbelt.ca www.globalgreenbeltsconference.ca www.greenbeltfresh.ca www.tourdegreenbelt.ca
Canadian Association of Physicians for the Environment (CAPE)	Gideon Forman Executive Director Canadian Association of Physicians for the Environment 130 Spadina Avenue, Suite 301 Toronto,ON M5V 2L4 (416) 306-2273
Hospital Food Systems	Helen Ann Dillon helenann@thegoodfoodmavens.com http://www.gohfs.org
Health Care without Harm -Food Committee	Jamie Harvey, Healthy Food Program, Health Care Without Harm (HCWH) Food Coordinator Institute for a Sustainable Future 8 N. 2nd Ave. East. Suite 200 Duluth, MN 55802 USA T: 218 525 7806 E: harvie@isfusa.org
EcoCare	Sean Smyth EcoCare Convenor, Eco Stewardship Program London Health Science Centre Engineering Services Room G1-113 800 Commissioners Road East London ON Canada N6A 5W9 Tel: 519-685-8500 Ext: 52082 Email: sean.smyth@lhsc.on.ca
My Sustainable Canada	Tania Del Matto, M.ES. Director My Sustainable Canada T:519-886-3699 E:Tania@mysuscan.org W:www.MySustainableCanada.org
Ontario Hospital Association	GRAHAM TAKATA Consultant, Green Health Care

	Ontario Hospital Association 200 Front Street West, ON Toronto, ON M5V 3L1 Tel: 416 205 1497 Fax: 416 205 1360 Email: gtakata@oha.com www.oha.com
YMCA EcoIntern Program	Terri Rutty P: (416) 928-3362 ext. 2039 terri.rutty@ymcagta.org Youth Eco Internship Program YMCA of Greater Toronto 42 Charles Street East Toronto, ON M4Y 1T4
Academic	
University of Guelph	Dr. Paulette Padanyi Associate Professor Department of Marketing and Consumer Studies College of Management and Economics University of Guelph Guelph, ON N1G 2W1 519-824-4120, ext. 53774 ppadanyi@uoguelph.ca
	Dr. Vinay Kanetkar Associate Professor Department of Marketing and Consumer Studies College of Management and Economics University of Guelph Guelph, ON N1G 2W1 519 824-4120 x 52221 E: vkanetka@uoguelph.ca
Wilfred Laurier University	Alison Blay-Palmer, PhD Associate Professor Department of Geography and Environmental Studies Wilfrid Laurier University Waterloo, Ontario N2L 3C5 alison.blaypalmer@gmail.com http://alisonblaypalmer.com/
Ryerson University Centre for Studies in Food Security	Cecilia Rocha, PhD Associate Professor and Interim Director School of Nutrition Director, Centre for Studies in Food Security Ryerson University 350 Victoria Street

	Toronto, ON M5B 2K3, Canada T: 416-979-5000 ext. 6009 F: 416-979-5204 E: crocha@ryerson.ca] www.ryerson.ca/foodsecurity www.ryerson.ca/nutritionandfood www.ryerson.ca/ce/foodsecurity
	Mustafa Koc Associate Professor Department of Sociology and Centre for Studies in Food Security Ryerson University 350 Victoria Street Toronto, ON M5B 2K3 Canada T: 416 979 5000 ext. 6210 E: mkoc@soc.ryerson.ca
Community Groups	
Waterloo Region Food Systems Roundtable	Ellen Desjardins, Co-chair Steffanie Scott, Co-chair www.wrfoodsystem.ca
Heatlh Care	
St Mary's General Hospital, Kitchener	Tammy L. Quigley, BSc, MBA Director of Support Services St. Mary's General Hospital 911 Queen's Blvd. Kitchener, ON N2M 1B2 Tel: (519) 749-6578 ext. 1209 Blackberry: (519) 500-8662 Fax: (519) 749-6484 E-Mail: tquigley@smgh.ca
St. Joseph's Health Care, Guelph	Leslie Carson Food Service Manager St. Joseph's Health Care Westmount Road Guelph, ON N1H 5H8 Tel: (519) 824-6000 ext. 4254 Email: lcarson@sjhcg.ca
William Osler Health Centre, Brampton	Anne Marie MacKinnon RD Director of Patient Services for Carillion Inc

Appendix 3: Webinar Participants and Slides

Participants who indicated interest in attending and attended (X) the Local Food for Health Care webinar:

Bonnie Kerr X
Dianne SteeleX
Sarah Tolton
Barb Collins X
Catherine Pazzano X
Diane Turner X
Leslie Carson X
Anne Marie Mackinnon X
Marc Xuereb X
Julia Lee X
Cathy Payne X
Joanne Bays X
Tammy Quigley X
Linda Varangu X
Brendan Wiley Tool X
Julie Aliston X
Candace Bester X
Lynn Marshal X
Jerome Ribesse
Kent Waddington X
Vikrant Agarwal
JJ Knott X
Kathy Macpherson X
Sarah Macpherson X
Megan Sudderaard
Joanne Kiefer X
Gina Carvalho X
Chris Alward X

Contact the Coalition to obtain copies of the slides which were used during the webinar.

References

[i] Ministry of Agriculture, Food and Rural Affairs (2006), *Ontario Agri-food Trade by Commodity Group, January through December 2005.*
[ii] Xuereb, M. (2005), *Food Miles: Environmental Implications of Food Imports in the Waterloo Region*. Report for Region of Waterloo Public Health.
[iii] Government of Ontario Newsroom Website: McGuinty Government And Farmers Join Together To Promote Ontario Food April 6, 2009.
[iv] Landman, K., Blay-Palmer, A., Kornelsen, S., Bundock, J., Davis, M., Temple, K., Megens, S., Nelson, E., Cram, R.. (2009), *Models and Best Practices for Building Effective Local Food Systems in Ontario.* Report prepared for Ontario Ministry of Agriculture Food and Rural Affairs.
[v] Health Systems Facts Website: Average Number of Inpatients on Any Given Day, Ontario, 2008, February 2010.
[vi] Varangu, Linda, personal communication, February 2, 2010.
[vii] Koc, M., Dahlberg, K. (1999), The Restructuring of Food Systems: Trends, Research, and Policy Issues. *Agriculture and Human Values, 16*: 109-116.
[viii] Mishra, A., Ol-Esta, H., Gallespie, J. (2009), Effect of agricultural policy on regional income inequality among farm households. *Journal of Policy Modeling, 31*(3): 325-340.
[ix] ATi Consulting (2002), *The Impact of Local Government on Farm Business in Nova Scotia.* Report for Nova Scotia Federation of Agriculture.
Iowa Farmers Union (2003). *Addressing the True Impacts of Concentrated Animal Feeding Operations*. Report for GRACE Public Fund.
Smithers, J., Lamarche, J. and Joseph, A. E. (2008), Unpacking the terms of engagement with local food at the Farmers' Market: Insights from Ontario. ***Journal of Rural Studies*** 24: 337-350.
[x]Feenstra, G. (1997), Local Food Systems of Sustainable Communities. *American Journal of Alternative Agriculture* 12(1): 28-36.
Hockridge, E., Longfield, J. (2005), *Getting More Sustainable Food into London's Hospitals*. Report for Sustain London.
Smithers, J., Lamarche, J. and Joseph, A. E. (2008), Unpacking the terms of engagement with local food at the Farmers' Market: Insights from Ontario. ***Journal of Rural Studies*** 24: 337-350.
[xi]DEFRA. 2006. *Unlocking opportunities: lifting the lid on public sector food procurement*. Report for Department for Environment, Food, and Rural Affairs.
Morgan, K. (2007), *Greening the Realm: Sustainable Food Chains and the Public Plate*. Report for The Centre for Business Relationships, Accountability, Sustainability & Society.
[xii] MacLeod, M., Scott, J. (2007), *Local Food Procurement Policies: A Literature Review*. Report for Nova Scotia Department of Energy, Ecology Action Centre
Pirog, R., Van Pelt, T., Enshayan, K., Cook, E. (2001), *Food, Fuel, and Freeways: An Iowa perspective on how far food travels, fuel usage, and greenhouse gas emissions*. Report for Leopold Center for Sustainable Agriculture.
Xuereb, M. (2005), *Food Miles: Environmental Implications of Food Imports in the Waterloo Region*. Report for Region of Waterloo Public Health.
[xiii] Pirog, R., Van Pelt, T., Enshayan, K., Cook, E. (2001), *Food, Fuel, and Freeways: An Iowa perspective on how far food travels, fuel usage, and greenhouse gas emissions*. Report for Leopold Center for Sustainable Agriculture.
[xiv]DEFRA. (2009), *First Report from the Council of Food Policy Advisors.* Report for the UK Departmentfor Environment, Food and Rural Affairs.
[xv] American Dietetic Association. (2007), Position of the American Dietetic Association: Food and Nutrition Professionals Can Implement Practices to Conserve Natural Resources and Support Ecological Sustainability. *Journal of the American Dietetic Association.* 107:1033-1043.
[xvi] Hamm, M., Bellows, A. (2003), Community Food Security and Nutrition Educators. *Journal of Nutrition Education Behavior* 35: 37-43
[xvii]Mulokozi, G., and Svanberg, U. (2003), Effects of traditional open sun-drying and solar cabinet drying on carotene content and vitamin A activity of green leafy vegetables. *Plant Foods for Human Nutrition, 58*: 1-15.

Ray, R. C., Ravi, V. (2005), Post harvest spoilage of sweetpotato in the tropics and control measures. *Critical Reviews in Food Science and Nutrition, 45*: 623-644.
[xviii] Jones, A. (2001), *Eating Oil: Food Supply in a Changing Climate*. Report for Sustain & Elm Farm Research Centre.
[xix] MacLeod, M., Scott, J. (2007), *Local Food Procurement Policies: A Literature Review*. Report for Nova Scotia Department of Energy, Ecology Action Centre
[xx]DEFRA. (2010), *Food 2030: How we get there*. Report for the UK Department for Environment, Food and Rural Affairs.
[xxi] Hockridge, E., and Longfield, J. 2005. *Getting More Sustainable Food into London's Hospitals*. Report for Sustain London.
[xxii]*Sustainable Development Commission. Healthy Futures. Progress in Practice. Royal Brompton Hospital Food Project*. (2010), Report for the Sustainable Development Commission.
[xxiii] Rocha, C. (2009), Developments in National Policies for Food and Nutrition Security in Brazil. *Development Policy Review, 27*(1): 51-66
[xxiv] MacLeod, M., Scott, J. (2007), *Local Food Procurement Policies: A Literature Review*. Report for Nova Scotia Department of Energy, Ecology Action Centre
[xxv] Joshi, A., Kalb, M., Beery, M. (2006), *Going Local: Paths to Success for Farm to School Programs*. Report for National Farm to School Program Center for Food & Justice, Occidental College and Community Food Security Coalition
[xxvi] Health Care Without Harm website: *Healthy Food for Hospitals Pledge*, February, 2010.
[xxvii] Koc, M., MacRae, R., Desjardins, E., Roberts, W. (2008), Getting Civil About Food: The Interactions Between Civil Society and the State to Advance Sustainable Food Systems in Canada. *Journal of Hunger & Environmental Nutrition, 3*(2&3): 122-144.
[xxviii] *Food Connections: Toward a healthy and sustainable food system for Toronto.* (2010), Report for Toronto Public Health.
[xxix] Blay-Palmer, A., Koc, M. (book in progress). *Imagining sustainable food systems: The path to regenerative food systems. Chapter 12*.
[xxx] Maan-Miedema, J. (2008), *Neighbourhood Markets Initiative*. Report prepared for the Region of Waterloo Public Health.