



Nourish

*Transforming hospital food
toward a more sustainable future*

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Health Care Without Harm - EU
November 22, 2018



From Haida Gwaii to Gander, meet

THE INNOVATORS



Convening Question

How can food in
healthcare
elevate...?





16 opportunities for food in health care.

This infographic by **Nourish: Future of Food in Health Care** shares the various opportunities available to health care institutions in Canada to leverage food as a way to improve patient, organization and community outcomes.

Download the [full infographic](#) as a PDF or explore it online below.

This infographic was developed with the support of **Canadian Association of Physicians for the Environment**, the **Canadian Coalition for Green Health Care**, the **Canadian Malnutrition Task Force**, **Dietitians of Canada**, **Food Secure Canada**, **HealthCareCAN**, **MaRS Solutions Lab**, and the University Health Network's **OpenLab**.

INFOGRAPHIC



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Sholty Crack | Haida Gwaii Hospital and Health Centre | British Columbia

Organizational Level Projects

- Procurement (21)
- Gardens (5)
- Menus (15)
- Understanding the Px (7)
- Culturally safe food and reconciliation (10)
- Staff & Patient Education (12)



Annie Marquez | CIUSSS | Quebec



Dan Munshaw | City of Thunder Bay | Ontario



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Peer to peer learning

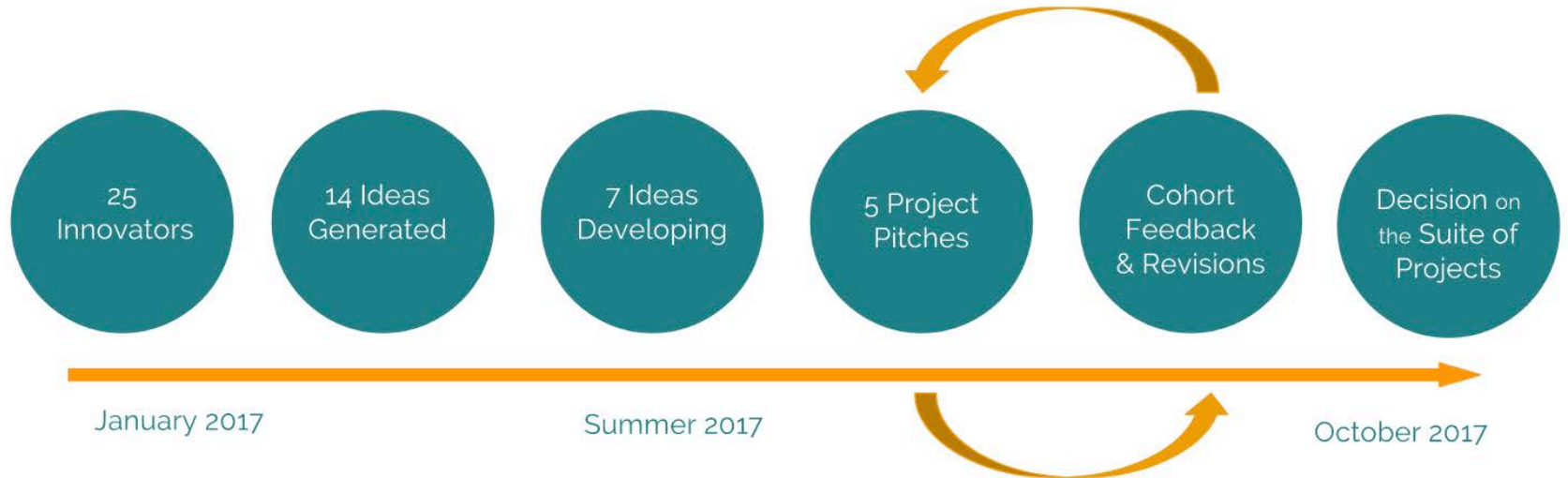


Early Insights

- **Individual learning** - high degree of individual learning and growth among cohort members (e.g. worldviews, motivation, etc.)
- **Organizational learning** - varied degrees of adoption of new ideas at organizational level (e.g. new procurement policies vs exceptions off-contract)
- **Systems learning** - too early to tell, with some early signals of potential to impact at this level

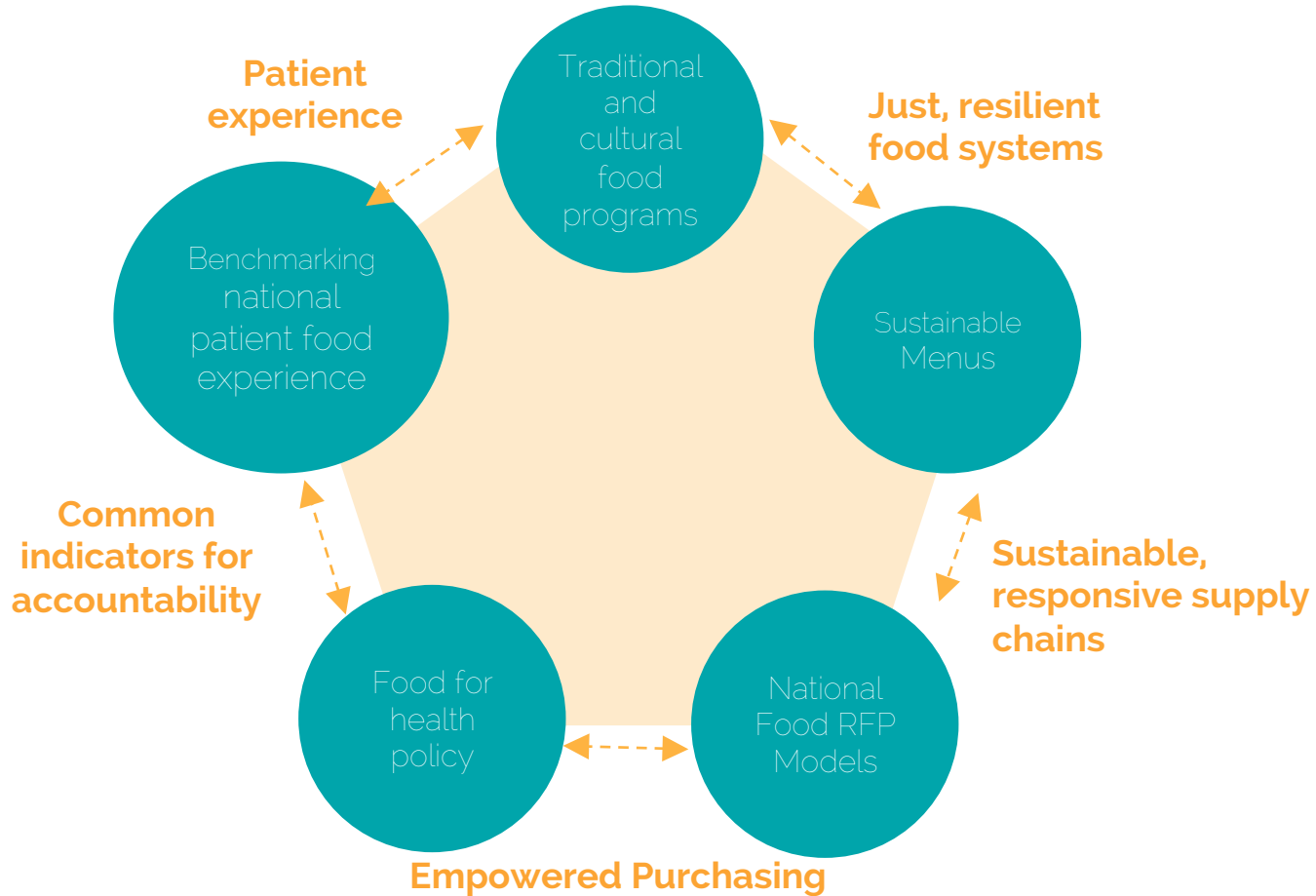
Collaborative Projects

*\$100,000 for systems-changing,
legacy-building work*



*How do we define the problem? What's our relationship to it? Who's affected?
What's been done before? What we propose to do...*

Cohort Prototypes: 5 systems change projects to build a culture of food for health





Capstone May 2019

Learning from our prototype
into the movement.

Toronto: May 15 -16, 2018



Sustainable Menus Project

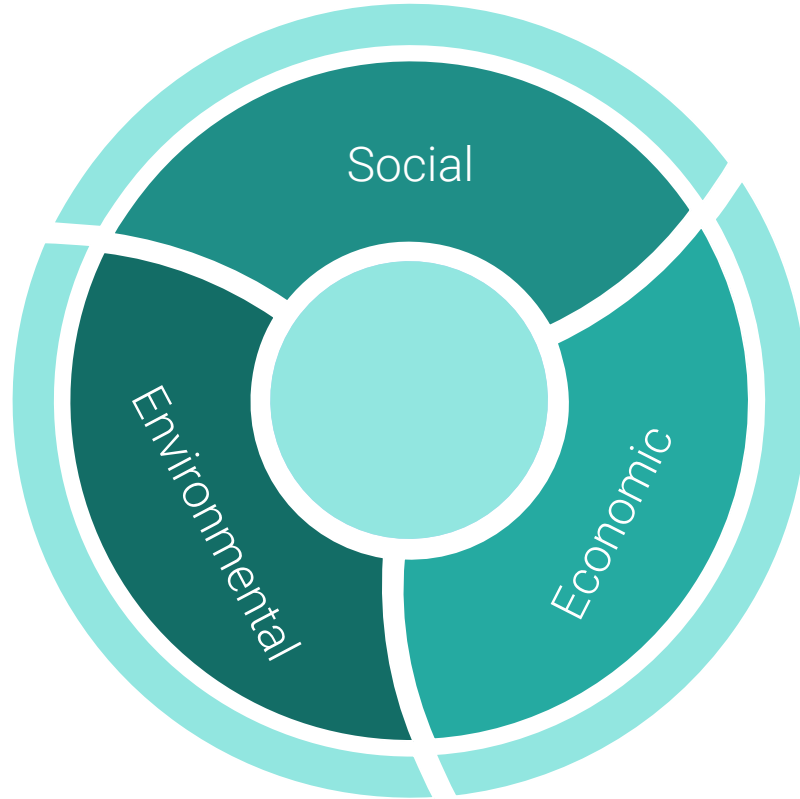
Annie Marquez, R.D.
Manager of Menu Management and Nutritional Information System
CIUSSS Centre-Sud-de-l'île-de-Montréal, Quebec

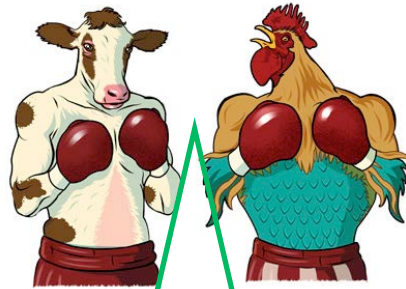
Guide to Sustainable Menus

Converting patient to veganism is not the priority



Three Dimensions of Sustainability





But great change
is happening



Guide to sustainable menu

Choose
more
sustainable
ingredients

Include
new
unfamiliar
products

Increase
variety

Find
inspiration,
resources,
peer learning

Reduce
waste

Avoid
undesirable
additives

Meet
patients
needs

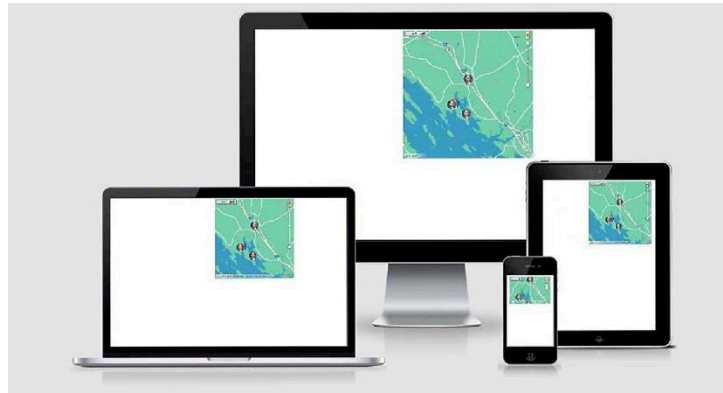
Learn
about
Indigenous
food

Reduce
meat

Avoid ultra-
processed food

A guide to sustainable menu: *choose your own adventure*

Soon available on your screens



To be part of the adventure: Annie.Marquez.ccsmtl@ssss.gouv.qc.ca



National Request for Proposal (RFP) Project

Dan Munshaw, CSCMP, CPSM, C.P.P.
Manager, Supply Management
City of Thunder Bay



Good tasting & healthy meals begin with the *right ingredients*

Objectives:

- Develop a tool(s) to procure the right ingredients
- Leverage public spend to advance sustainability, social benefit, regional economic and other considerations

City Thunder Bay Story



- Forward food contracting
- Local fruit, greens & vegetables
- Indigenous harvested wild foods

RFP Models Considered



- Negotiations & forward contracting < \$10k
- RFP invitation <\$100k
- RFP open >\$100k
- RFP outsourced food service operations



RFP Model Inclusion



- Education & how to use kit
- Fully customizable RFP templates including:
 - mission statement, connecting healthy patient outcomes to healthy foods
 - suggested T&C's, geared to foods
 - recommended award criteria c/w sliding weight bars, inclusive of sustainability, social benefit, regional economic development ...
- Reporting tools: contract compliance, annual reporting

RFP Project Challenges

- Compliance with legal & international trade agreements
- Balancing conflicting trade-offs: price, quality, sustainability
- Articulation of regional culturally appropriate foods
- Beta testing
- Maintaining & refining RFP tool relevancy



Your Guide to
Local Food!
10th Edition



Measuring Patient Food Experience



*Stephanie Cook, MSc., RD
Director Nutrition Services
Saskatchewan Health Authority*

Food In Care Matters!

Patient tray waste can often be as high as 50%, translating into a food waste cost of \$45 million annually for Canadian hospitals.¹⁰



Patients who ranked the food in care highly were 4x more likely to rank their overall hospital experience as excellent.⁵

Source: Saskatchewan Health Quality Council

Patients who ate less than half their food were at a higher risk for a longer hospital stay.⁷

Source: Canadian Malnutrition Task Force



Malnourished patients stay in hospital 2-3 days longer.

A malnourished patient costs \$2,000 more than a nourished patient, totalling \$2B/year.⁶



"Every day we work hard making good food so our patients can get better and go home to their families."

Lee B., Food Service Worker

Our Vision

We will have:

- a sensitive, reliable, consistent tool to measure the patient experience with hospital food
- an understanding of patient expectations and whether we are meeting them
- an ability to compare patient food experience and establish benchmarks and best practices
- adoption of the tool across Canada as 'gold standard' quality indicator
- evidence to support initiatives aimed at improving the patient food experience
- food in care re-defined and re-valued

**Let food be thy medicine
and medicine be thy food**

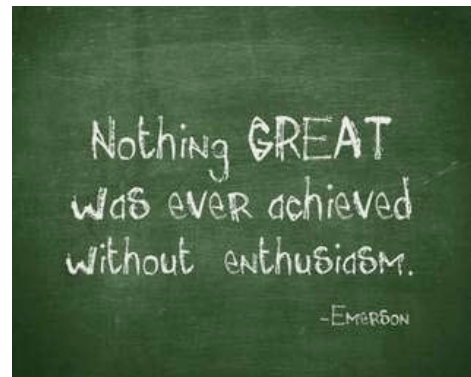
Hippocrates



Where to start?

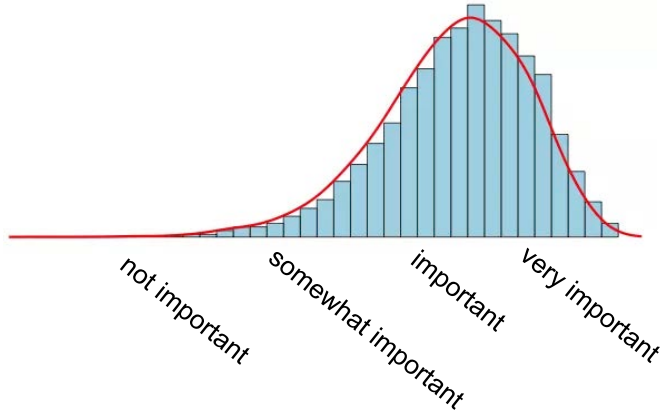


- How do we measure it and convince others?
- Partner with like-minded organizations that share a common goal – Canadian Malnutrition Task Force
- Start small – jump in with both feet
- Find your gems of success and share them with enthusiasm!

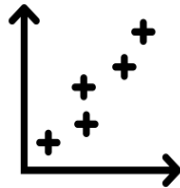


The Pilot Study – what we found

1. Patients consistently rated all nine attributes of hospital food as important or very important, with food that is *fresh, tasty* and *healthy* receiving the highest ratings



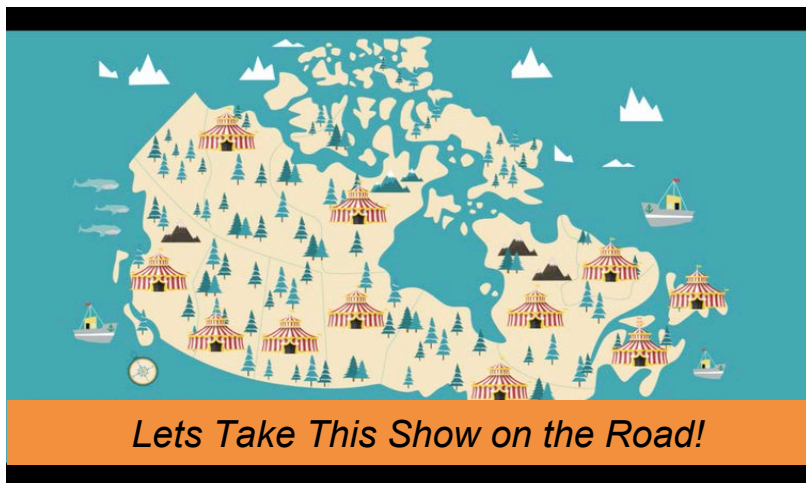
2. Positive correlation between satisfaction and intake



3. Many improvement opportunities for our hospitals



Where to next?



Goal:

- 🍏 10 Provinces and 3 Territories
- 🍏 20+ hospitals
- 🍏 1000+ patients
- 🍏 Creation of a database



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Nourish
the future of food in health care

@NourishLead
#FoodsHealth

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The Good Food Project

Measuring the Patient Hospital Food Experience

Rebecca Weckworth BSc Nutr (candidate), College of Pharmacy and Nutrition, University of Saskatchewan
 Stephanie Cook, MSc RD, Nutrition and Food Services, Saskatchewan Health Authority
 All Bell, Research Scientist, Research Performance and Support, Saskatchewan Health Authority

Patients who ranked the food in care highly were 4x more likely to rank their overall hospital experience as excellent.⁵

Source: Saskatchewan Health Quality Council

ABSTRACT

Objective: Measuring patient satisfaction with hospital food is an important quality measure. High satisfaction with food is linked not only to food intake but also satisfaction with the overall hospital experience. Given the high rates of hospital malnutrition, efforts aimed at improving food satisfaction are paramount. The aim of this study was to measure patient expectations and satisfaction with hospital food, to determine if there is an association between satisfaction and intake and to identify target areas for quality improvement initiatives.

Methods: The Patient Hospital Food Experience Questionnaire (PHFEQ) was administered at two acute care hospitals in Regina, SK. All patients ≥ 18 years, English speaking, medically and cognitively able to participate and consuming a full diet for two days were eligible to participate. A total of 145 PHFEQ were administered to randomly selected eligible patients over the six-week data collection period. Dietary intake was estimated following meal consumption using My Meal Intake Tool. Computation nutrient analysis software was used to determine percent calories consumed. Demographic and survey data were entered and analyzed using RedCap.

Results: Patients rated the majority of hospital food attributes as important/very important, in particular food that is fresh, tasty, healthy and served at the correct temperature. In contrast, attributes such as food that is local, familiar or traditional to one's culture received fewer important/very important ratings. Of all attributes, temperature received the most favourable ratings and smell the least. On average, patients consumed 67% of calories provided. Patients' perceptions of the meal were positively correlated with intake. There were no differences between the two sites for any of the outcome measured.

Conclusion and Relevance: The PHFEQ is a reliable tool to measure patients' expectations, perceptions and satisfaction of hospital food, and can be used to identify specific areas for quality improvement efforts. Use of this tool is recommended in hospitals to enable results of patient satisfaction to be compared, and benchmark standards developed for future quality improvement efforts.



BACKGROUND

Patient satisfaction is an important quality measure. Past research has shown patients reporting high satisfaction with hospital food indicate a high satisfaction with their hospital stay overall, affirming quality improvements with food service should be valued.^{1,2} Hospital food must be viewed as medicine, rather than an amenity, particularly in light of the high rates of malnutrition in Canadian hospitals.³ Malnourished patients have an increased length of stay, increased risk of readmission, and cost an average 28 dollars annually.⁴ Reducing rates of malnutrition through increased food intake will reduce costs, but more importantly benefit the health and well-being of our patients. To be accomplished, patient expectations, perceptions and satisfaction of hospital food must be established to identify improvement opportunities and implement quality initiatives.

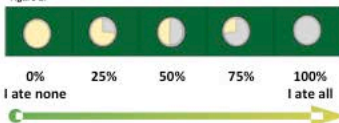
OBJECTIVES

- To better understand patient's expectations of hospital food.
- To measure food satisfaction at the two Regina hospitals.
- To determine if there is an association between food intake and food satisfaction.
- To identify areas for quality improvement initiatives.

METHODS

This study took place over a six-week period at the two acute care hospitals in Regina, SK. The PHFEQ was administered at breakfast (B), lunch (L) and supper (S). Up to three surveys were administered for both B and L, or L and S on each day. Patients were randomly selected and screened one hour prior to the meal with recruitment for B occurring the night before. All patients ≥ 18 years, English speaking, medically and cognitively able to participate in a survey and consuming a full oral diet for minimum two days were eligible. The PHFEQ contained three parts: expectations, perceptions of meal just consumed, and comments. Patients rated their expectations of various attributes of hospital food on a 5-point scale: 1=not important to 5=very important. Following the meal, patients assessed its various attributes on a 5-point scale: 1=very poor to 5=very good. Meal intake was estimated using My Meal Intake Tool based on five consumption levels (Figure 1). Intake data was assessed using Computation nutrient analysis software to determine % calories consumed. All data was entered into RedCap.

Figure 1.



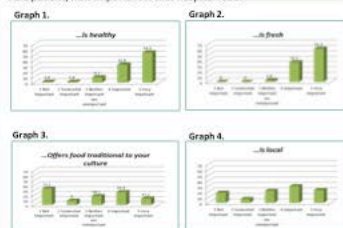
RESULTS

A total of 145 surveys and 144 meal intake assessments were completed. Seventy-seven percent of surveys were administered by the research assistant and 23% by the patient. Average age of patients was 67, with 59% female and 41% male. Eighty-six percent of patients identified their ethnicity as Canadian/Caucasian, followed by 11% as First Nations or Metis.

Expectations. Various attributes of hospital food expectations were assessed. The majority of attributes had similar trends to Graphs 1 and 2, with a higher % rating *important* or *very important* for the attributes *healthy* and *fresh*. The attributes that were an exception to this pattern of responses were *food that is traditional to one's culture* and *food that is local*, with a higher % rating *not important* (Graph 3 and 4).

RESULTS cont'd

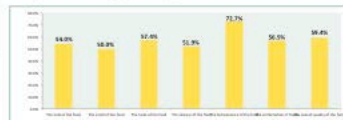
As a patient, how important is that hospital food...



Perceptions, Satisfaction, Intake.

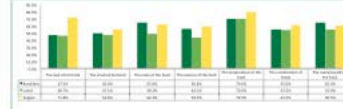
Patients assessed various attributes of the meal provided. The % rating good or very good for all attributes assessed is shown in Graph 5. Temperature was rated most favorably.

Graph 5. Percent rating good or very good for attributes assessed.



Supper was rated more favorably for all attributes of perception compared to lunch, as shown in Graph 6.

Graph 6. Percent rating good/very good by meal time.



A Spearman's rho correlation found positive correlations between satisfaction and intake, as seen in Table 1, indicating as perception of food improved more calories were eaten at that meal.

Table 1. Meal Satisfaction and Intake

	Late	Small	Full	Too much	Temperature	Comments	Overall Quality
r	.366**	.265**	.381**	.395**	.199**	.375**	.363**
p	.000	.004	.000	.000	.020	.000	.000
N	137	134	134	133	137	136	136

DISCUSSION

To our knowledge this was the first study to determine patient expectations, perception and satisfaction with hospital food. Patients clearly identified several attributes such as look, smell, temperature, variety, portion and choice as *important*, with taste, healthy and fresh receiving more *very important* ratings. Food that is local and food that is traditional to one's culture received a more varied response, with many patients indicating these attributes as *not important*. These results were not surprising, considering our demographic. Intake data identified patients consumed two-thirds of their meal, and as perception of food improved, more calories were consumed. Past research has demonstrated the positive relationship between perception and intake.² From the PHFEQ, the food services department was able to determine specific areas of success, such as the temperature of the food, and areas to improve on such as visual appeal and in particular, the lunch meal as a whole. Additionally, the most and least popular meals emerged, enabling targeted improvement initiatives.



Malnourished patients stay in hospital 2-3 days longer, costing \$2,000 more than a nourished patient, totalling \$28/year.

CONCLUSION

The PHFEQ is a reliable tool to measure patient expectations and perceptions of hospital food, enabling a better understood patient's expectations of hospital food and demonstrating a positive relationship between food intake and food satisfaction. The PHFEQ also proved to be sufficiently sensitive to identify targeted areas for quality improvement initiatives. Future studies incorporating the PHFEQ as a measure of patient satisfaction in other centres would be beneficial. Collecting data using this standardized tool from hospitals across Canada is key to the development of a national database that will more fully describe patient expectations, develop benchmarks, compare services, anticipate impacts of quality improvement efforts and ultimately provide the good food that patients need for health, well-being and healing.

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- Nourish
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- The Department of Research and Performance Support, SHA for their on-going support and funding of the Summer Research Program

A network of partners

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Without Harm



NOURISH

The future of food
in health care.



SUSTAINABLE FOOD LAB



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Academy for Systems Change



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