

Kathryn Simone
1234 Ocean Way
Vancouver, BC V5N 1P2

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Michael O'Callaghan
Chair of Lions Gate Hospital
North Vancouver, BC V6T 1Z4

Subject: Letter of Transmittal

Dear Michael O'Callaghan,

Here is my report, Determining Feasibility of Healthy Hospital Food at Lions Gate Hospital. This report provides recommendations to Lions Gate Hospital for providing healthy hospital food to patients. During the process of compiling this report, I've learned about how access to healthy hospital food can both improve patient outcome and lessen economic expenditure for the hospital.

As the Chair of Lions Gate Hospital, you are in charge of many patient-outcome initiatives and I thank you for your commitment to the residents of North Vancouver. The goal of this report is to provide evidence of how healthy food is a vital factor in patient success, as well as information about how other hospitals in the United States have met the challenge of providing healthy hospital food. By achieving this goal, both patients and the economics of Lions Gate Hospital as a whole will benefit. Patients benefit through better long-term health and a decreased chance of readmission, thus improving the economic feasibility of offering healthy food.

I sincerely appreciate the time and consideration Lions Gate Hospital employees provided me during the process of this report. It is clear these employees are proud to work for Lions Gate Hospital, and I hope the contents of this report will help make the hospital a healthier and more economical place. If you have any questions or feedback concerning this report, please do not hesitate to contact me at kathrynsimone@gmail.com.

Sincerely,

A rectangular box containing a cursive signature that reads "Kathryn Simone". In the bottom right corner of the box, the word "Preview" is written in a small, plain font.

Kathryn Simone

Running Head: DETERMINING FEASIBILITY OF HEALTHY HOSPITAL FOOD AT LIONS GATE
HOSPITAL

Determining Feasibility of Healthy Hospital Food at Lions Gate Hospital

for

Michael O'Callaghan, Chair of Lions Gate Hospital

University of British Columbia

by

Kathryn Simone

English 301 Student

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Abstract

Throughout the past few decades, the science linking a poor diet to illnesses like heart disease and cancer has proven to be robust. For example, in October 2016, the World Health Organization released a report placing processed meat in the highest-risk category for carcinogens (a formation of substances causing cancer), and declaring red meat “probably carcinogenic” (Harvard School of Public Health, 2016). It is thus surprising that hospital patients in Canada are served processed meals high in salt, sugar, and cholesterol.

However, revamping hospital menus is a complex task. Hospitals have to remain financially sound, and provide high volumes of food at a reasonable cost. Often, this means packaged and processed foods are favoured over fresh produce. Yet the cost of hospital food is a fraction of the costs hospitals incur when caring for patients, and many of these patients have chronic conditions that can be prevented or treated with diet.

Based on the analysis above, to increase the health of patients and decrease hospital expenditure, the following methods are recommended:

- Mandate that the 3 meals daily add up to the government mandated Recommended Dietary Allowance (RDI) of nutrients
- Increase the daily budget from \$8 to \$16 per person per day so that Lions Gate Hospital will be able to provide fresh, healthy meals, and will statistically save money from lower readmission rates and shorter hospital stays

Introduction

A. Current State of Hospital Nutrition in Canada

Findings suggest that unhealthy eating contributes a tremendous economic burden to Canada that is similar in magnitude to the burden of smoking and larger than that of physical inactivity (Lieffers, 2018). It is thus surprising that there are currently *no standards* for the health of food in Canadian hospitals, when patients are most vulnerable. Canadian hospital food is often criticized for being unappetizing, but dietitians say the processed meals also lack proper nutrition for recovering patients (CBC News, 2012). These meals put patients at risk for longer stays and decreased health, especially long-term patients who will be consuming these meals over long periods of time. At the same time, Canadian hospitals must be economical and the current model sees *treating* patients, rather than feeding them, as a priority. Hospitals devote about one per cent of their total budget to food, which breaks down to an average of \$8 per patient a day (CBC News, 2012).

B. Overview of Problem and Purpose of Report

In Canadian hospitals today, at a crucial time when at-risk patients need vital nutrients to heal, they are served hospital food that promotes disease and prolongs hospital stays. Studies show that, on average, malnourished patients are more likely to be readmitted within 30 days and stay in the hospital 2-3 days longer, adding up to an additional \$2 billion in hospital costs per year (Murphy, 2017). This puts pressure on the healthcare system — in Canada, patients with chronic diseases most related to poor diet and nutrition account for \$26 billion annually in health expenses (Lieffers, 2018). Importantly, although The Canadian Medical Association and

Canadian Healthcare Association both have policies on the importance of food and nutrition, neither have taken a position on the issue of hospital food to date (Kidd, 2018).

C. Research Methods

Primary sources of data include a survey canvassing employees of Lions Gate Hospital, including occupational therapist Serafina Liotti (B.S in nutritional sciences and masters of occupational therapy) at Lions Gate Hospitals as well as 9 current registered nurses from Lions Gate Hospital. Each were asked to fill out the survey found in Appendix B. The survey asked the hospital employees to denote their beliefs surrounding hospital food and the impact of hospital food on patients. The results were compiled into tables that can be found in Appendix C, and summarized in this section. Secondary sources include research publications outlining the deleterious effects of unhealthy foods on patient outcome and hospital readmission, and a CBC article covering Canadian hospitals and current hospital spending on food.

D. Limitations of the Study

The main limitation of the study was a lack of access to the Lions Gate Hospital annual budget overall spending and spending on food. Without access to this budget, it is unclear how much is spent on food per patient per day. Consequently, the estimated spending per patient per day was taken from the 2012 CBC News article estimate. More research may be required in order to find a healthy meal feasibility report that will work with the Lions Gate Hospital annual budget.

II. COLLECTED DATA

A. Survey Results

As per Figure 1, 40% of respondents indicated the hospital food in terms of health at Lions Gate Hospital to be “poor”, with 10% responding “very poor”.

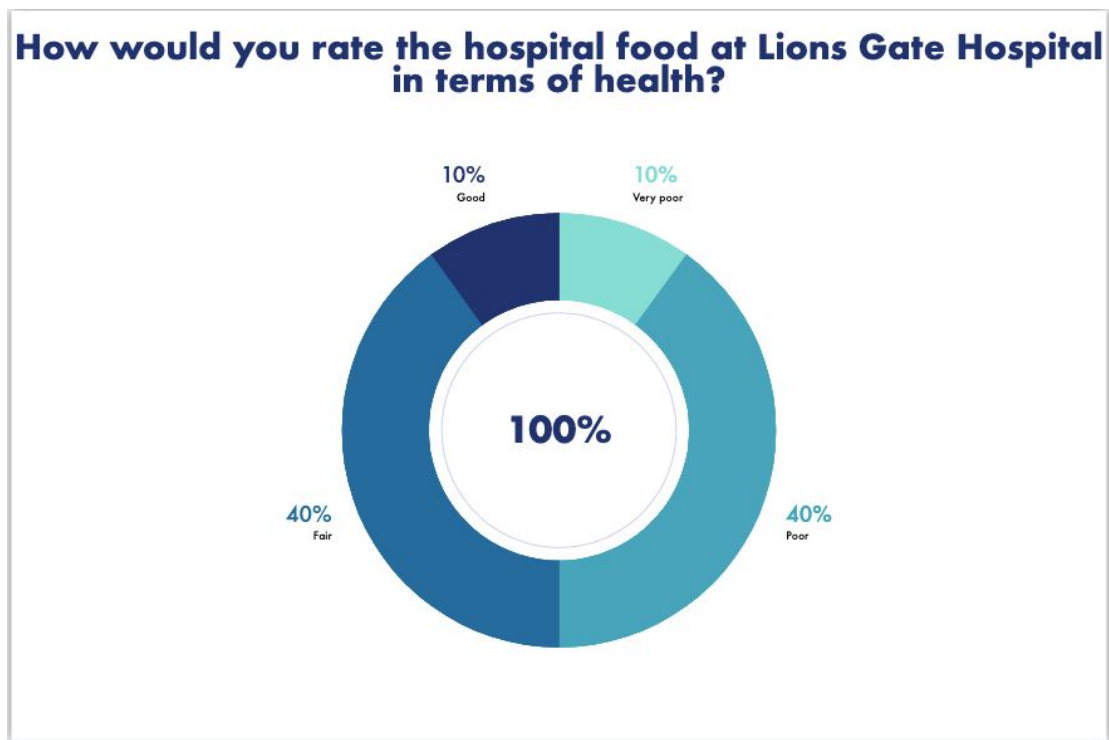


Figure 1. Ten Hospital Employee Responses Regarding Hospital Food Health

When asked to elaborate on how poor quality hospital food affects hospital patients, one responded expressed it was a “shame we aren’t helping [patients] improve their lifestyle”, while another respondent indicated worry over shifting focus to food while Canadian hospitals are already overwhelmed (Table 1).

Well theres a lot of patients in here that are obese or overweight and its a shame we aren’t helping them improve their lifestyle by teaching healthy habints that they can continue after the hospital
As a nurse practitioner, I appreciate the reality that Canadian hospitals grapple with, and I ask myself if it makes sense to obsess about food services when cash-strapped hospitals are battling staff and bed shortages and insufficient laboratory and emergency spaces. However, it would make me more confident if we were feeding our patients healthier food.
So much food goes uneaten and in the trash. There is an ethical price for all this uneaten food. Hospitals should be leading the fight for public health, yet they overlook this huge area. Ironically, this is happening at a time when good food (local, organic, etc) is all the rage.
I think food service is not considered a key department of most hospitals. It’s a service that it has to be there. A lot of people don’t give it much thought, but when you talk to patients, its amazing how important food is to them.
There are major challenges to improving patient satisfaction and comfort through better quality food. I know some hospitals in Ontario are developing approaches to improving the quality of food – it will be interesting to see whether they spread across the country over here as well.
The challenge I see is in having the proper budget to purchase quality food, a variety of food that is healing and preparing it in a way that it retains its quality

Table 1. Hospital Employee Experiences and Thoughts Regarding Hospital Food

In terms of perception of the economic feasibility of providing healthier hospital food, 60% of survey respondents indicated they believe it would be economically feasible (Figure 2).

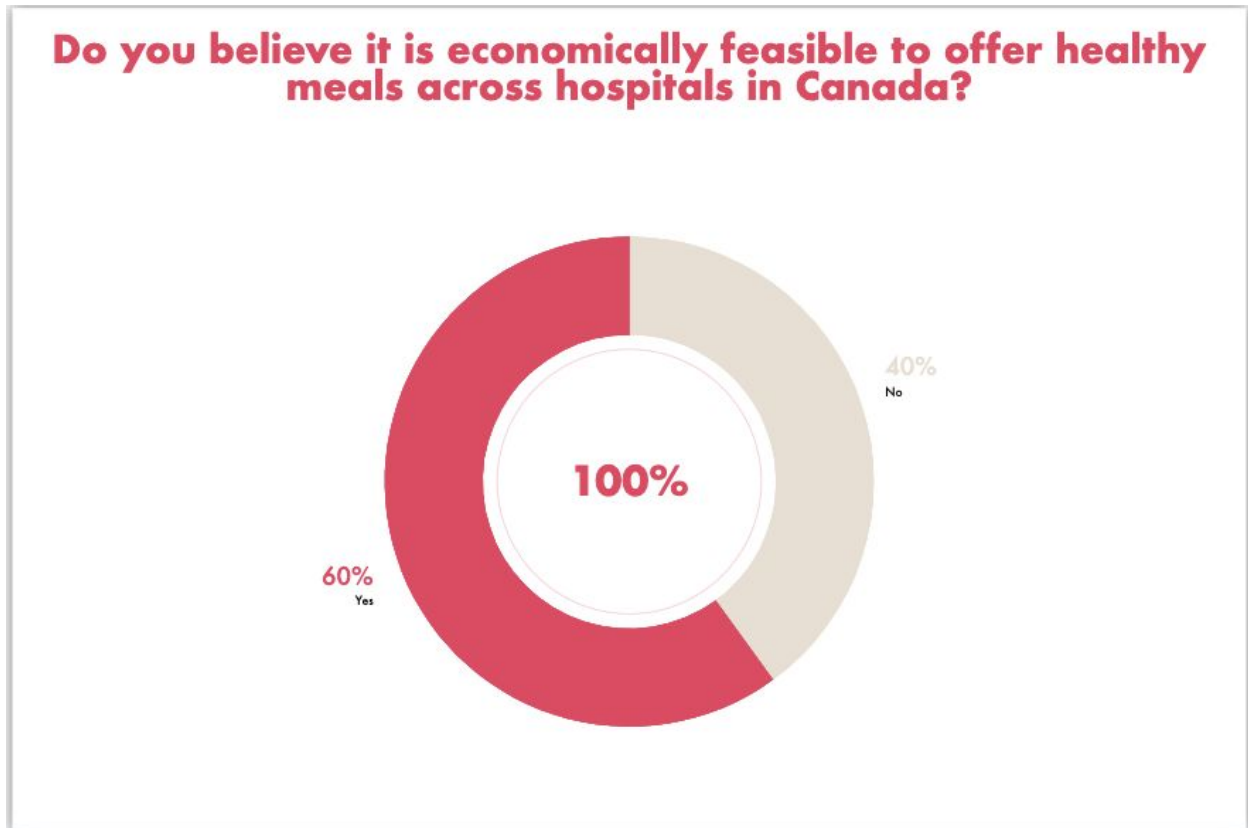


Figure 2. Hospital Employee Responses Regarding Economic Feasibility of Improving Hospital Food

Respondents were then asked for an explanation as to why providing healthy hospital food was important. One respondent shared a personal anecdote below, and noted that a patient of theirs was consuming hospital food that would exacerbate their symptoms (Figure 4).

At one point during my Masters degree, I worked with a patient who was suffering from Crohn's disease, which causes inflammation of the gut. A colonoscopy revealed damaged intestinal membranes, with patchy redness and scattered ulcers. He was still well enough to eat, though, and his appetite didn't appear to be affected. One day, I came into his room to find him starting on the hospital lunch of the day: chicken, creamy mashed potatoes, chocolate cake, and a processed apple juice -- more or less the opposite of what a patient with gastrointestinal issues should be ingesting.

Table 2. Hospital Employee Response Regarding Patient Experience

B. Secondary Research Results

Lieffer (2018) did a Canadian study on the economic ramifications of individuals not meeting daily recommended nutrients and servings of healthy food items. The estimated direct health care costs that were attributable to not meeting food recommendations represents approximately 3.9% of all hospital, physician, and drug costs in Canada in 2014. Over 50% of these estimated direct health care and indirect costs were attributable to ischemic heart disease (CAD\$2.9 billion direct health care costs; CAD\$4.9 billion indirect costs); type 2 diabetes was also a substantial contributor (CAD\$1.7 billion direct health care costs; CAD\$2.1 billion in indirect costs). Fewer of these estimated costs were attributable to cancer, stroke, and chronic kidney disease (cancer: CAD\$253.9 million direct health care costs, CAD\$1.2 billion in indirect costs; stroke:

CAD\$281.1 million in direct health care costs, CAD\$480.4 in indirect costs; chronic kidney disease: CAD\$4.4 million in direct health care costs, CAD\$1.6 million in indirect costs).

C. Proposed Solution

1. Assessment of Other Countries That Successfully Offer Healthy Hospital Food

There have been a handful of success stories from the United States of America in recent years. In 2012, for example, Montefiore Medical Center, the largest health-care provider and employer in the Bronx, eliminated sugary beverages, fried foods, and trans fats across many or all of its locations (Moran, 2014). The hospital also partnered with fruit and vegetable vendors to hold cooking demonstrations in its clinics. The researchers found that after hospitals implemented HHFI, patient meals experienced a 25 percent increase in fiber, a 19 percent decrease in sodium, a 24 percent decrease in the percentage of calories from fat, and a 21 percent decrease in the percentage of calories from saturated fat. Further, fresh fruit servings increased by 667 percent.

2. Discussion of Economic Feasibility of Healthy Hospital Food in Canada

Although making dietary changes is a complex process which requires strong support and major investments from government and society, starting with policies at Lions Gate Hospital which have the ability to make small positive changes at the population level have the potential to reduce the current economic expenditure.

If Lions Gate Hospital (300 bed hospital) doubled the amount it spends on food from \$8 per day to \$16 per day, this would add around \$11,000 per week to food budgets or a little more than \$500,000 a year. Given that British Columbian hospitals make investments in new technologies,

such as Magnetic Resonance Imaging machines that can cost hundreds of thousands of dollars, perhaps investing in food, and the subsequent improved patient health, is a worthwhile consideration for Lions Gate Hospital.

Final Recommendations and Further Applications

Promoting health and preventing disease in an era of chronic disease is part of a hospital's mission, and that mission can only be achieved through behavior change. Insalubrious behaviors are principal causes of chronic disease, and poor diet is chief among them. Just as doctors are responsible for teaching individual patients about good eating practices, so are the hospital systems for which they work responsible for promoting dietary change in broader communities.

Works Cited

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IV. Appendices

Appendix A: Hospital Employee Survey Questions

1. How long have you been an employee of Lions Gate Hospital?

- A. Less than 1 year
- B. 1-5 years
- C. 5-10 years
- D. 10-20 years
- E. 20+ years

2. Approximately how much of your job involves serving food to hospital patients?

- A. Many times throughout the work day
- B. Once or more times throughout the work day
- C. Once per week
- D. Never

3. How would you rate the hospital food at Lions Gate Hospital in terms of health?

- A. Very Poor
- B. Poor
- C. Fair
- D. Good
- E. Great

Please explain:

4. On a scale from 1-5, how do you rate the nutritious value of hospital food?

Please explain:

5. Are you aware that in Canada the current model of hospital food currently does not have any rules regarding the nutritional value of hospital meals?

A. Yes

B. No

6. Do you believe it is economically feasible to offer healthy meals across hospitals in Canada?

A. Yes

B. No

Whether you answered yes or no, please explain:

Any further comments: