An Exploration of Health and Nutrition Programs:

Are Underlying Social Issues Recognized?

by

Jane Sayner

Department of Food Systems and Society

Marylhurst University

A thesis submitted in partial satisfaction of the

requirements for the degree of

Master of Science in Food Systems and Society

June 10, 2016

Thesis Advisors: Jessica Jane Spayde, Patricia Allen

[Thesis Approval Page]

[This page will be provided for you. Just leave this page blank for now]

Table of Contents

List of Tables

Abstract

Health and nutrition programs are used worldwide with the intention of improving a patient's or population's health status. Yet the US population is becoming more ill and patients are often readmitted to the hospital because of "poor compliance." Often these patients low-income and struggle to incorporate nutrition and health recommendations into their lives. This research explores current nutrition and health literature in the US, UK, and Canada address food insecurity and other social causes that inhibit the accessibility of health and nutrition recommendations to patients. Through comparison of academic literature, government, and NGO reports, the UK and Canadian approaches often addressed the underlying social causes related to limited adherence to nutrition and health recommendations, while the US had a more treatment-based and individualistic approach. One vital recommendation of this research is for the US to utilize aspects of UK and Canadian approaches to better address social issues that act as barriers to adequate health and nutrition, such as food insecurity.

Keywords: food insecurity, nutrition programs, education, health problems, poverty, health disparities, interventions, reported outcomes

Chapter One

Introduction

Globally and in the US there is differential access to health care, food, and adequate resources to live a balanced and healthful life. This is based on socially constructed distinctions (such as class, race, and gender), and this differential access has consequences for individuals who experience this reality such as limited access to health care and food insecurity. But, it also has consequences for all members of society which include higher health care costs, crime, restrictive gender norms, and a damaged work force.

Inequality can be defined as a "social disparity" (Merriam-Webster, n.d.). This social disparity does not allow people to have equal opportunity and access to health care, which leads to poor health and increased disease. Often those suffering from inequality also have limited access to nutritious and healthful foods. People who live in poverty and low-income[1] populations often suffer from food insecurity and are at higher risk for medical issues due to their economic status and the high cost of health care in the US. People with lower incomes are also more likely to become victims of diet-related illnesses such as diabetes and other metabolic diseases due to a lack of access to both healthy food and preventative health services (Levine, 2011, para. 6).

A *preventative* health measure often used for diet-related illness is health and nutrition education (Williams, Carter, & Eng, 1980), which is also used as a point of *treatment* for people who are already suffering from diet-related illness such as diabetes (Deakin, Cade, Williams, &

[1] According to the Population Reference Bureau (2013, para.3) low-income is defined as, "working families who earn less than twice the federal poverty line."

Greenwood, 2006). Existing studies have shown that diet-related education and informational programs are beneficial for lower income populations, resulting in improvements in daily self-care activities of those with illnesses and reduction of health care costs (Clark, Feldman, Evans, Levison, Wasilewski, Y., & Mellins, 1986). Yet, dealing with medical issues such as diabetes can be more challenging for people experiencing poverty, as it may be more difficult to obtain foods for the prescribed diet due to financial constraints. This research argues that those with low-incomes are also less likely to be treated appropriately for these diet-related illnesses because of monetary, social, and cultural barriers to "following" the advice of health and nutrition professionals, and because of the individualistic approach of health and nutrition education in the US.

Problem Statement

Nutrition and health education in the US can be viewed as a paradox in low-income populations. Nutrition education is unevenly distributed within the US because low-income populations do not have the means to implement the necessary diet and nutrition recommendations into their lives, which exposes a bias in health and nutrition education programs. The "inability" of some segments of the population to "follow" recommended nutrition and health guidelines shows how nutrition education may primarily be focused on and effective in populations who have the means to follow the recommendations. But for those who cannot follow recommendations due to social or financial circumstances, they are stuck in a vicious cycle of ill health due to this culture of poverty.[2] Though there is significant research that

[2] Leon-Guerrero (2015) states, "Some sociologists have suggested that poverty is based on a culture of poverty, a set of norms, values, and beliefs that encourage and perpetuate poverty" (p.51).

shows the health benefits of providing nutrition and health education to low-income populations (University of Wisconsin, 2011), even if people "know" what to do, they are unable to comply with dietary and health recommendations due to social issues such as food deserts and financial constraints (Darmon & Drewnowski, 2008). With this paradox, how do we interrupt this cycle of ill health so we may help people from of all economic statuses pursue realistic healthy and nutritious lifestyles?

Project Purpose

The purpose of this research is to examine if social barriers are acknowledged and addressed in health and nutrition programs, and how these barriers may limit access to nutrition recommendations and thus, limit some people's ability to lead healthful lifestyles. Though health care providers are not expected to completely eliminate poverty, they are expected to provide nutrition and health information to assist with improving patients' health. The goal of this research is to show what needs to be in place and implemented in order to allow for applicable information to be obtainable and successfully followed by patients and those who seek medical advice. An analysis and discussion of international solutions will aid with determining the most realistic solutions to this cyclical problem, as the US is in need of alternative methods.

The intended purpose of this study is to implement more comprehensive approaches to health and nutrition education. Specifically, integration of the recommendations from this study at Legacy Hospital, where the author presently works. As a clinical dietitian working with low-income populations, the author wishes to improve the social conditions which cause patients to be diagnosed with "non-compliance" in regards to health and nutrition advice. Through

incorporate of new perspectives and initiatives, these issues can be addressed and positively affect the health of low-income populations.

Research Statement and Roadmap

This thesis examines health and nutrition education in low-income populations to identify the social issues that present barriers to leading healthful lifestyles. The issues and the recommendations made can help improve the health and nutrition of low-income individuals.

Chapter two explores the depth of this issue, by examining how low-income population lack access to adequate health care resources, the viscous cycle of poverty, and the US health care system in comparison with the UK and Canada. International frameworks are also discussed in this chapter. Chapter two concludes by introducing the research questions for this study: (1) To what extent is existing nutrition and health education literature recognizing that diet-related issues are socially influenced, as with low-income populations? 2) To what extent are health and nutrition programs attempting to address the social dimensions that cause diet-related diseases, particularly with low-income populations? And 3) What areas of opportunity does a comparative international approach offer for existing US-based health and nutrition education programs?

Chapter three outlines the methods and methodology used in the research, which includes qualitative analysis and literature reviews used obtain and analyze the necessary data. The positionality as a health care provider is also discussed. Chapter three also explicates the data collection process.

Chapter four presents the results of the data gathering and analysis through discussion of each research question. Specific findings are addressed as well as how the results will contribute

to the health care field. These findings discuss and compare results for each of the research questions from the three countries examined (US, UK, Canada).

Finally, Chapter five summarizes the key points of analysis and revisits the importance of addressing inequality in health and nutrition education. Recommendations for professions and existing nutrition programs are provided, including incorporation of new frameworks and changing the mindset of the health care field. The intention and application to society, particularly to the health care field, of the completed thesis is reviewed.

Chapter Two

Background and Significance

There are many types of health care systems in the world, some emphasize disease prevention while others focus more on treatment, or tertiary care. The US is mainly a private multi-payer system with limited public options, while Canadian health care is offered through a mostly free[3] public health care system (Telesure, 2014). The type of health care in the UK varies, "Health care and health policy for England is the responsibility of the central government, whereas in Scotland, Wales and Northern Ireland it is the responsibility of the respective devolved governments" (Grosios, Gahan, & Burbidge, 2010, p.529). The single-payer health system found in Canada and the UK is where the state pays for health care services as opposed to private insurers, while health care in the US is offered by many facilities which are owned by private sector businesses (CBC, 2006; Boundless, n.d.). The US is one of the wealthiest countries in the world (Tasch, 2016), yet the health care system is failing and the population is staying sick or becoming sicker (Hiltzik, 2014; Bodenheimer, 2009).

Petty (2014) argues that the US has a more neoliberal approach than other industrialized countries, with a for-profit health care model, and especially with the Affordable Care Act that was signed into law in 2010 which perpetuates the neoliberalist focus of health care,

> The primary purpose of the ACA is to control spiraling health care costs while facilitating a qualitative leap in neoliberal health care restructuring in the United States, freeing up tens of billions of taxpayer dollars to further engorge the highly profitable health care insurance companies, private equity firms, and hundreds of other health care corporations. (para.8)

---

[3] According to CBC News (2006), Canadian health care is mostly free at the point of purchase, but it is a single-payer system that is paid for through taxes (para.6).

Dougherty (1992) also stated that the US standpoint is more focused on individualism due to the emphasis on individual responsibility for payment.

This raises the question of whether health is a priority in the US, and what the real prerogatives are behind the American health care system as the existing system is much different from other industrialized countries. Pharmaceutical and surgical companies in the US grow each year with new medications or surgeries to treat medical issues. However, these medications and surgeries act as bandages instead of addressing the issues- of how to prevent people from becoming sick in the first place. According to the American Heart Association (2015):

> Between 2010 and 2012, the NIH [National Institutes of Health] spent an estimated $2.2 billion to $2.6 billion a year on human behavioral studies to prevent chronic diseases. That's just 7 to 9 percent of its total $30 billion annual budget…it spends 20 percent of its overall budget on prevention. The remaining 80 percent goes to research on treatments. (para.3-4)

This statement shows how the US spends drastically more on learning to *treat* illnesses than learning to *prevent* them in the first place. Pharmaceutical companies have so much power and influence in the US, for them sickness is actually profitable.

Yet there is some attention to prevention in the US. Some of the US preventative approaches include patient and group health and nutrition education. One example of preventative measure used to save money is observed with health insurance companies which have vested interest in saving money. Kaiser Permanente is an example of a proactive health insurance company that is invested in disease prevention and offers many outpatient and community programs to keep their members healthy (Kaiser Permanente, 2015). As a for-profit company, it is in Kaiser's best interest to minimize costs; they do so by incentivizing low-cost preventative programs up-front which prevents high-cost treatment and hospital admissions in the future (Appleby, 2010). Unfortunately, low-income populations often do not have the

opportunity to obtain health and nutrition recommendations provided to them during these educations due to their social circumstances (DeVoe, Baez, Angier, Krois, Edlund, & Carney, 2007).

Health and nutrition education are key in the reduction of diet-related problems and hospital admissions (Clark et al., 1986), but often there are social barriers to obtaining access to nutrition education. Many individuals from low-income populations are admitted into hospitals for obesity, diabetes, and other diet-related problems, yet they are unable to follow nutrition and health advice because of social barriers such as living in food deserts, low literacy levels, and financial issues. For example, living in a food desert has been directly connected with obesity and diabetes due to poverty, unemployment, and access to healthful food (Chinni, 2011, para.8-11). Those with low literacy levels are significantly more likely to report their health as poor than those with adequate literacy levels and are more likely to use services designed to *treat* complications of disease and rather than services which *prevent* disease (U.S. Department of Health and Human Services, n.d., para. 6-7). The World Bank (2014) describes how financial constraints also act as social barriers to following health advice:

> Poverty is a major cause of ill health and a barrier to accessing health care when needed. This relationship is financial: the poor cannot afford to purchase those things that are needed for good health, including sufficient quantities of quality food and health care. (para. 1)

These social issues that act as barriers to following health and nutrition advice continue a viscous cycle of hospital admissions and readmissions, as well as prescribing more medications due to difficulties following recommended diet and lifestyle modifications. A cycle that is difficult to break.

Problem and Frameworks

While health care professionals provide health and nutrition education to patients in an attempt to improve patients' health status, the US health care system does not adequately capture the real problem, I argue that the real problems are social barriers perpetuated through inequalities in society. These social barriers to adequate health care and nutrition information include: lack of insurance, financial issues, race and age discrimination, and lack of transportation (Mandal, 2014, para.2). I also argue the focus should move away from individual responsibility. Due to the inability of the US health care system to recognize and address these social inequalities, temporary bandages are placed on patient care while the real problems are not resolved. Sated previously, studies show that health and nutrition education are effective for those who are able to adhere to the recommendations. However, others find the recommendations inaccessible due to ongoing social issues such as food insecurity and food deserts. Diet-related illness such as obesity and diabetes continue to worsen and the same patients who receive diet education continue to readmit to the hospital.

Though the US spends a great deal of money on resources that fund health and nutrition education, the desired outcomes are not achieved because of their individualistic approach; individuals are often blamed exclusively for their problems and are expected to take responsibility for themselves and their health, not society. Health is not solely a consequence of an individual's personal decisions. Instead, health is determined by policymaking (such as taxes on tobacco sales), social factors (like availability of food and discrimination), health services (such as access to health services and quality of health resources), biology and genetics (like sex and inherited diseases), as well as individual choices (such as alcohol and cigarette use) (Office of Disease Prevention and Health Promotion, 2010). However, many health care treatment

programs in the US seek only to change an individual's behavior (Dixon-Fyle, Gandhl, Pellathy, & Spatharou, 2012), therefore limiting the efficacy of the treatment by not also focusing on environmental, economic, and social factors that contributed to the illness (Resnik, 2007). There needs to be more of a balance between individualism and collaboration in order to achieve a healthy society (Sabin, 2012).

While there are benefits and challenges to each type of healthcare system in the world, often the countries that offer socialized health care are known to be successful partly because of their universal approach (Sen, 2015). They are focused on improving access to health care and nutrition while addressing the social issues that cause people to not be able to follow health and nutrition advice. The US prioritizes food security and food rights differently than other countries. The Special Rapporteur on the Right to Food in 2002 defined food rights as the following:

> The right to have regular, permanent and unrestricted access, either directly or by means of financial purchases, to quantitatively and qualitatively adequate and sufficient food corresponding to the cultural traditions of the people to which the consumer belongs, and which ensure a physical and mental, individual and collective, fulfilling and dignified life free of fear. (World Public Library, n.d., para.6)

According to the World Food Summit of 1996 food security is "when all people at all times have access to sufficient, safe, nutritious food to maintain a healthy and active life" (World Health Organization, n.d., para.1). In this research, food security is defined as, "...physical and economic access to food that meets people's dietary needs as well as their food preferences" (World Health Organization, n.d., para.1) and food rights or the right to food means, "freedom from hunger and access to safe and nutritious food" (National Economic and Social Rights Initiative, n.d., para.1).

There were many countries to choose for analysis in this study, but the US, UK, and Canada were chosen for specific reasons. The US was examined since it continues to rank last in

an international health care system comparison, while the UK (which includes England, Scotland, Wales, Northern Ireland) was chosen because it was rated number one in most dimensions of care (Davis et al, 2014). Canada was selected because of its well-known health care system which is often compared as a model to the US system (National Bureau of Economic Research, n.d.). Switzerland was originally considered because it was highly rated behind England, but there was limited data available regarding food insecurity as it this issue and related socioeconomic problems may not be as great of a concern as it is in the US and other countries (Swiss National Centre of Competence in Research, 2015). The following table compares health statistics from US, UK, and Canada in its national context, which shows how the US is worse in all three categories:

Table 1. Comparison of Health Statistics

Health Issue	**UK**	**Canada**	**US**
Overweight or obese (2013)	62% of the population	56% of the population	66% of the population
Diabetes (2014)	4% of the population	9% of the population	9.39% (and growing) of the population
Cancer (most diagnoses)	Ranked 23rd	Ranked 12th	Ranked 6th

(Sedghi, 2014; IndexMundi, 2014; World Cancer Research Fund International, n.d.)

Because of the existing issues in the US, one may wonder if there are similar problems in other countries and if other countries approach these issues differently. Why, in countries like Canada and the UK, is the health-care system rated better than the US (Commonwealth Fund, 2014)? Perhaps it is their focus on health promotion and disease prevention versus treatment (Boyce, Peckham, Hann, & Trenholm, 2010). Prevention includes health and nutrition education. Countries such as the UK and Canada offer health care that is much less complicated and the cost is much more equitably distributed, via government intervention. It would make

sense then, that the UK and Canadian governments are more proactive in health promotion and disease prevention in order to save money (Ball, DesMeules, Kwan, Jacobsen, Luo, & Jackson, 2010).

Countries such as the UK and Canada have similar socio-economic challenges that the US contends with such as income inequality, racism, classism, gender discrimination, which all contribute to food insecurity (Dugan, 2014; Government of Canada, 2014). Therefore, the existence of inequalities in the US is not the reason the US has more diet relate problems than other countries. The question I explore is how are countries such as the UK and Canada, who have similar social issues as the US, approaching health and nutrition programs, that lead them to less diet-related illness than in the US? Do the UK and Canada address food insecurity as related to diet-related illness? These issues will be further explored in the following chapters.

Research Questions

The research questions explore the differences in health care systems internationally, compare whether social issues and low-income populations are commonly acknowledged in nutrition and health programs, inquire what health and nutrition programs or health care systems are presently doing to address these problems, and to glean information from successful programs to incorporate into current health programs. The following research questions were developed to exam existing social issues. They were also developed to inquire if countries with more socialized health care systems acknowledged social determinants that allow for some members of society to follow health and nutrition recommendations while others (particularly low-income) may not have the same opportunity to follow or access health and nutrition information. These questions were developed in order to find information and techniques that may be used to change the perspective of US health and nutrition programs.

The first research question examines the scholarly *literature* on diet-related illnesses, asking: 1) To what extent is existing nutrition and health education literature recognizing that diet-related issues are socially influenced (as with low-income populations)? This question is pertinent because low-income populations are at high risk for diet-related illness (Levine, 2011, para. 6)., and because these populations often are limited with their health care resources and opportunities.

The second research question builds on the information from Research Question1 by asking: To what extent are health and nutrition *programs* attempting to address the social dimensions of diet-related diseases, particularly with low-income populations? The second research question examines whether or not existing health and nutrition programs acknowledge the political and other social causes of diet-related illness, and what they are doing to fix that problem.

Recommendations were gleaned from the data collected from the third research question: What areas of opportunity does a comparative international approach offer for existing US-based health and nutrition education programs? This data offered frameworks and information that may be useful to incorporate into the existing US health and nutrition programs. Research Question 3 utilizes the data from the previous research questions to provide those recommendations.

Chapter Three

Methodology and Methods

This section discusses the author's epistemological orientation and positionality, how the research was carried out, and how the data was gathered. This research addressed the role of nutrition and health education in low-income populations while exploring if and how other countries addressed social issues that revolve around health and nutrition education, with the goal of making health and nutrition education more accessible to those who use that information. In the health care system, those users are patients.

Epistemological Orientation

This study used a critical research epistemological orientation combined with an interpretative study (Reus, 2006) which allows for examination of the social issues involved with nutrition and health program recommendations and adherence. Critical research is focused on "the oppositions, conflicts and contradictions in contemporary society, and seeks to be emancipatory i.e. it should help to eliminate the causes of alienation and domination" (Myers, 1997, para.22), while interpretative studies are defined as research that, "does not predefine dependent and independent variables, but focuses on the full complexity of human sense making as the situation emerges" (Myers, 1997, para.20).

The author, a US health care provider, strives to educate patients and other populations on how to improve their health and quality of life by addressing diet and disease-specific issues. Yet, often there are identifiable circumstances that prevent the information from being fully accessible to all people, while others are able to succeed. These circumstances led to the desire to investigate issues of nutrition education and awareness of food insecurity; patients are unable to adhere to dietary recommendations due to social conditions such as poverty and lack of access

to healthy food.[4] Other countries with similar social issues were included in this study in order to potentially incorporate parts of their models into the existing US system, and so health care providers can adjust their views and practices toward patients.

Methodology

This study incorporates qualitative analysis and literature reviews to examine social issues in health and nutrition programs. Qualitative research is "primarily exploratory research…used to gain an understanding of underlying reasons, opinions, and motivations" (Wyse, 2011, para.3) while literature reviews are the "process of reading, analyzing, evaluating, and summarizing scholarly materials about a specific topic" (Nordquist, 2016, para.1). Through literature reviews and analysis of existing policies and programs, data is examined and various approaches to nutrition and health education are compared, by examining measures of success and the justifications of these measures. Qualitative analysis and literature reviews were applicable and necessary to answer the research questions in order to examine social issues, as well as investigate international programs, and appropriately gather the data needed for analysis. Material that was researched within the past five years was prioritized for use, but some of the information, programs, and toolkits that were over 10 years old were the most updated information available, possibly because of how long it takes for certain programs to be studied and implemented.

[4] Healthy food is "any natural food popularly believed to promote or sustain good health, as by containing vital nutrients, being grown without the use of pesticides, or having a low sodium or fat content" (Health food, n.d.).

Methods

I used the data sets to answer all three research questions. To answer my research questions, I examined documents in the public domain, which included: scholarly literature, published articles, reports, books, and websites. Resources in English for each country included: NGO, academic, and government literature. Within each document, I coded for societal issues or dimensions mentioned in the texts, food insecurity discussion, and any reference to measured successful programs, methods, and outcomes in national and international texts. The data collected were placed in tables labeled for further analysis (see Appendix A, Tables 1-8). Key terms and concepts that were searched for during the content analysis[5] and how they were operationalized are described in Table 2.

Table 2. Operationalization of Key Terms/Concepts

Key Terms/Concepts	Operationalization
Dimensions of health	Policymaking (ex. taxes on tobacco sales), social factors (ex. availability of food and discrimination), health services (ex. access to health services and quality of health resources), biology and genetics (ex. gender and inherited diseases), individual choices (ex. alcohol and cigarette use) (Office of Disease Prevention and Health Promotion, 2010)
Food insecurity	Food security and food insecurity have varied definitions, but based on the previous definition of food security on page 15 in the Background and Significance chapter, it was determined whether the terms provided in the literature coincided with the intended terms being searched for.
Health problems	Stated diseases, or description of health problems in the literature
Interventions	Stated or described ways the problem was intervened, fixed, or addressed
Nutrition and health programs	Stated or described nutrition and health programs in the literature
Poverty	Described or used the terms poor, low-income, impoverished
Reported outcomes	Stated measures of success or outcomes in the literature

[5] Content analysis is defined as a "research technique used to make replicable and valid inferences by interpreting and coding textual material" (University of Georgia, n.d.)

Social issues (such as food insecurity and food deserts)	"an undesirable condition that people believe should be corrected" (Your Dictionary, 2016, para.1)

The documents used for data analysis for each of the research questions are listed in Table 3. The sample size of literature and documents used for analysis was small (18), but sufficient to appropriately analyze the areas for this study. I examined documents from the US, UK, and Canada, and for each country, I examined government, NGO, and academic sources. The government documents were specifically chosen due to their association with health or nutrition programs, ex. SNAP, the School Lunch Program and other programs that fall under the USDA. The NGOs offer a snapshot of collaborative effort, and also show one way that NGOs approach these issues. The academic resources provide an exploratory glimpse, with effort to obtain recent (within the past five years) information and literature that encompassed the necessary data. Once the literature was found, the key terms listed in Table 2 are coded while obtaining data.

Table 3. Literature Resources Used for Each Country

	US	**UK**	**Canada**
Government Resource	(USDA, n.d.)	(United Kingdom Government, 2010 & 2015)	(Government of Canada, 2014)
Non-Government Resource (NGO)	(Trust for America's Health, n.d.)	(Press, V., 2004)	(Canadian Feed the Children, 2014)
Academic Literature	(Adler, & Newman, 2002), (Gunderson, 2011), (Chilton, 2009), (Lee, J.S., Gundersen, C., Cook, J., Laraia, B.,& Johnson, M.A., 2012)	(Dowler & O'Connor, 2012), (Faculty of Public Health, 2014), (McFadden, A., Green, J.M., Williams, V., McLeish, J., McCormick, F., Fox-Rushby, J., & Renfrew, M.J., 2014), (Lambie-Mumford, H., Crossley, D., Jensen, E., Verbeke, M., & Dowler, E., 2014)	(Tarasuk, 2001), (Power, E, 2005), (Mikkonen, J. and Raphael, 2010), (Raphael, 2002)

Chapter Four

Results, Analysis, and Contribution

This chapter presents the findings of this study, which includes the analysis of NGO reports, government websites, and academic literature from the US, Canada, and the UK, organized by research question. See Tables 1- 8 in Appendix A for detailed information. I then discuss my recommendations for new approaches to health and nutrition education in low-income populations, which are organized by each country. I conclude this chapter by explaining the contribution this study makes to health and nutrition education and agrifood scholarship.

Research Question 1

The first research question asks: 1) To what extent is existing nutrition and health education literature recognizing that diet-related issues are socially influenced? Dimensions of health that were discussed in the literature included policies, individual choice, health services, and social factors. The resources used for each question are listed in Table 3 and explained in the text below. Table 4 shows whether or not food insecurity is one of the problems addressed in the literature from each country.

Table 4. Is Food Insecurity One of the Problems Identified?

	US	UK	Canada
Government Resource	• Somewhat, vague description, more emphasis on programs/initiatives. Multiple links to other websites, not cut and dry, overwhelming info on website, is it all for face value? (USDA, n.d.)	• No, not directly mentioned, more individualized and food label/ingredient issues (United Kingdom Government, 2010; United Kingdom Government, 2015)	• Yes, food insecurity is linked with poor health (Canadian Foundation fort Health care Improvement, 2012; Government of Canada, 2014)
Non-Government Resource (NGO)	• Yes, "Since 2009, ProMedica's, 'Come to the Table' program has been working to ensure the well-being of communities in northwest Ohio and southeast Michigan by creating services and programs	• Yes, "The first stages of developing a local nutrition and food poverty strategy involve reviewing the health benefits of action on reducing food poverty and establishing food poverty as a priority issue. (Press, 2004, p.93)	• Yes "One in four Aboriginal children in Canada live in poverty and experience chronic food insecurity, and that number is rising. The social and health impacts, and loss of future potential to our country, are

	addressing basic nutritional needs. The link between hunger and poor health is clear—adults living in food insecure homes have chronic diseases and behavioral health conditions" (Trust for America's Health, n.d., para.1).		staggering" (Canadian Feed the Children, 2014, para.10)
Academic Literature	Yes • Call it SES, food insecurity called different things, ex. "disparity" (Adler, & Newman, 2002) • " The prevalence of food insecurity is of great concern, and is heightened by its many demonstrated negative health consequences" (Gunderson, 2011, p.3) • " Food insecurity is a serious public health problem associated with poor cognitive and emotional development in children and with depression and poor health in adults" **(**Chilton, 2009, p.1203) • " The high proportions of Americans who are food insecure combined with the numerous, demonstrated, serious health consequences associated with food insecurity make it the leading nutrition-related public health issue in the US today" (Lee et al., 2012, p.744)	Yes • "Food poverty is an important contributing factor to health inequalities in industrialised countries; it refers to the inability to acquire or eat an adequate quality or sufficient quantity of food in socially acceptable ways (or the uncertainty of being able to do so)" (Dowler & O'Connor, 2012, p.44) • "While there is some evidence that lack of nutritional knowledge and practical food preparation skills are contributory factors to poor diets in low-income families, structural barriers of affordability and access to fresh food are key" (McFadden et al, 2014, p.2) • "First, food poverty is increasing" (Faculty of Public Health, 2014, p.1) • "Policy makers, along with the media and the wider public, are now engaging with some of the questions such initiatives raise, around contemporary experiences of household food insecurity, and the impact of the receipt of food assistance" (Lambie-Mumford et al., 2014, p.iii-iv)	Yes • "Over the past two decades, household food insecurity has emerged as a significant social problem and serious public health concern in the "FirstWorld.'"(Tarasuk, 2001, p.487) • "A population health approach addresses the root cause of individual and household food insecurity-poverty-through improvements to the social safety net" (Power, 2005, p.1) • "It is estimated that about 9 percent or 1.1. million Canadian households – representing 2.7 million Canadians – experience food insecurity" (Mikkonen & Raphael, 2010, p.26) • focused more on poverty "In this view people living in poverty suffer actual material deprivations related to poor diet, housing, and sanitary conditions which contribute directly to poor health" (Raphael, 2002, p.14)

Though the information varied depending on the country and resource, one quote stood out, "The first stages of developing a local nutrition and food poverty strategy involve reviewing

the health benefits of action on reducing food poverty and establishing food poverty as a priority issue" (Press, 2004, p.93). This quote shows how health is a priority in the UK, above monetary gain. The tone of the UK and Canadian resources present as more human than the US, which was more matter-of-fact and removed.

Social issues discussed in text

The US NGO and academic research mentioned socioeconomic status related to health problems. Trust for Americas Health (n.d.) focused on multiple disparities, but did not contend that food insecurity was the overlying issue as a focus was to, "improve policies and environmental factors influencing health in order to reduce the burden of obesity and other chronic diseases" (para.1), while the government link did not directly mention socioeconomic issues or was diluted with the large amount of information on web site, yet the USDA (n.d.) stated, "Community Food Security addresses hunger and food security at a community level, which is a systems approach including local infrastructure, economic and job security, federal food assistance, food recovery and donations, education and awareness, and community food production and marketing" (para.3). The US NGO and academic literature discussed policy improvement and political change, but there was no mention of social issues from government documents.

The information from the UK academia and NGO literature also mentioned social issues, and focused on food "poverty" (another term for insecurity), and poverty in general. However, similarly to the US's government website, the UK government website was more focused on individual responsibility and existing health programs. They state, "Health problems associated with being overweight or obese cost the NHS more than £5 billion every year" (United Kingdom Government, 2015, para.2). This shows how though the focus may differ in the UK, they still

into account individual responsibility and the cost of health. The academic and NGO information from the UK recognized social issues and discussed the need for a "social justice framework", but the government site seemed to make health more of an individual's responsibility and/or choice.

All resources from Canada acknowledged social issues, whether it was food insecurity, poverty, or another social problem, by clearly referring to, and addressing, that specific problem in the text. For example, Tarasuk (2001) stated:

> Recognition of household food insecurity as a public health problem has led to calls for assessment and monitoring activities to appraise the scope of the problem and evaluate interventions, and considerable research has been undertaken to conceptualize relevant variables and develop measurement instruments. (p.487)

This quotes shows how aware Canada has been of their food security issues, and how proactive they with trying to improvement it.

The Canadian government report also readily addresses the social issues involved with adhering to nutrition and health recommendations. Tarasuk (2001) acknowledges political and social issues such as poverty that prevented people from adhering to nutrition and health guidelines. He states:

> The capacity of current initiatives to improve household food security appears limited by their inability to overcome or alter the poverty that under-pins this problem. This may relate to the continued focus on food-based responses, the ad hoc and community-based nature of the initiatives, and their origins in publicly funded health and social service sectors. (Tarasuk, 2001, p. 487)

Academic literature, information from the government, and information from NGOs were chosen to answer research Question 1 to offer variability with perspectives. Some of the data was easier to glean than others- the academic literature and some NGOs clearly identified the information while the government sites seemed to be the most diluted, at times confusing, and

required more research and exploration through referenced resources to find an answer. Data was gathered based on what was available on the sites and through the academic literature. In order to obtain the necessary information, some sites required additional reading from referenced reports or outside links, such as with the government websites. The Canadian and UK resources were more aware of the social issues involved with food insecurity in their mention of nutrition and health programs. Though not all of the sources (such as with the UK government site) mentioned social issues, the ones examined did offer more insight than with the US alone.

Research Question 2

The second research question asks: To what extent are health and nutrition programs attempting to address the social causes of diet-related diseases? Dimensions of health found in the literature related to this research question include politics, social factors, and health services. The resources used for each question are listed in Table 3 and explained in the text below. Table 5 displays the data that was gathered from the literature sources.

Table 5. To What Extent are Health and Nutrition Programs Addressing the Social Dimensions that Cause of Diet-Related Diseases, Particularly with Low-Income Populations?

	US	UK	Canada
Government Resource	Do not mention how it relates to diet-related illness, only the importance of food access and need to increase fruit and vegetable consumption (USDA, n.d.)	They do not, "Health problems associated with being overweight or obese cost the NHS more than £5 billion every year" (United Kingdom Government, 2015, para.2)	Direct link, already a step ahead with nutrition programs separate from food insecurity, already aware that food insecure people struggle to comply with recommendations (Government of Canada, 2014)
Non-Government Resource (NGO)	Focused on multiple disparities, but did not contend that food insecurity was the overlying issues, more of "improve policies and environmental factors influencing health in order to reduce the burden of obesity and other chronic diseases" (Trust for America's Health, n.d., para.1)	Created strategy to address poverty/food access (Press, 2004)	Food insecurity is a main issue (Canadian Feed the Children, 2014)
Academic Literature	• Socioeconomic status related to health problems: mentioned how SES is	• Food poverty associated with health inequalities, focused on human rights/right to food, problem: food	• Food insecurity, poverty (Tarasuk, 2001)

	related to health problems CVD, DM, cancer (Adler & Newman, 2002) • "The prevalence of food insecurity is of great concern, and is heightened by its many demonstrated negative health consequences" (Gunderson, 2011, p.3) • -"Food insecurity is a serious public health problem associated with poor cognitive and emotional development in children and with depression and poor health in adults" **(**Chilton, 2009, p.1203) • "The high proportions of Americans who are food insecure combined with the numerous, demonstrated, serious health consequences associated with food insecurity make it the leading nutrition-related public health issue in the US today" (Lee et al., 2012, p.744)	sufficiency ignored by State, little info exists about government's roles to ensure adequate nutritious food (Dowler & O'Connor, 2012) • "Social and environmental barriers can inhibit a healthy diet and these barriers are significant for poor and marginalised women and children in high income countries. Those who are poor are more likely to have diets that are energy dense and nutrient poor" (McFadden et al, 2014, p.2) • Food poverty increasing, wage/income issues, food costs (Faculty of Public Health, 2014) • Ongoing research case studies, need for more research due to the reported outcomes (Lambie-Mumford et al., 2014).	• Food security is an important social determinant of health…related to one of the most important and widely recognized social of health, income" (Power, 2005, p.2) • Health affected by income, food access (Mikkonen & Raphael, 2010) • "Poverty directly harms the health of those with low-incomes while income inequality affects the health of all Canadians through the weakening of social infrastructure and the destruction of social cohesion" (Raphael, 2002, p.vi)

Social causes discussed in texts

The US academic and NGO resources seemed to be more focused on social causes, especially food insecurity than the information from the government site. Though there were some government programs through the USDA that focused on food insecurity, there was no strong associations mentioned between social issues and health. Table 6 below was used to organize whether or not the resources addressed food insecurity, and what they say that they are doing to address it.

Table 6. To What Extent are They Attempting to Address Food Insecurity? What are They "Doing" (Or Say They're Doing)?

	US	**UK**	**Canada**
Government Resource	Addressing food insecurity in the community through jobs and food assistance, donations grant programs, food initiative programs, public exposure. (USDA, n.d.)	Nothing directly, "Healthy Lives, Healthy People" initiatives did not mention food insecurity (United Kingdom	Want to address social issues first, no mention of nutrition programs. Want to increase social wage, advocate for gov't change,

		Government, 2010 & 2015)	support traditional food. Divided into territories: ex. Nunavut public awareness, support local farmers, reduce cost (Government of Canada, 2014)
Non-Government Resource (NGO)	Funding for community improvement, emphasis on health, evidence based programs. (Trust for America's Health, n.d.)	Toolkit, local interventions (Press, V., 2004)	Breakfast/lunch programs, nutrition education (Canadian Feed the Children, 2014)
Academic Literature	• Recommend more research, targeting at risk/lower socioeconomic groups, more health promotion, incorporating more interventions into health care/insurance plans which continues the cycle of wealthy people having access to better care than those who cannot afford it, more of an analyses of existing issues and recommendations. (Adler, & Newman, 2002) • Public policies, SNAP participation, school lunch program, food banks, low food prices, financial management skills (Gunderson, 2011) • "1) learn about the prevalence and severity of food insecurity in the US across the lifespan and how this is increasing with the continued economic downturn; 2) understand the growing body of research that documents the impact of varying degrees of food insecurity on physical and mental health across the lifespan; 3) examine how food insecurity is related to chronic disease" (Lee et al., 2012, p.744)	• Examining evidence and case studies for government responsibilities, if human rights are being addressed, barriers to addressing the ongoing issues (Dowler & O'Connor, 2012) • "Our evaluation of the Healthy Start programme in England suggests that a food subsidy programme can provide an important nutritional safety net and potentially improve nutrition for pregnant women and young children living on low-incomes" (McFadden et al, 2014, p.1) • studying food aid users, where food insecurity stems from, models and provisions (Lambie-Mumford et al., 2014)	• "establishing ad hoc charitable food assistance programs, but the programs have become institutionalized. In the quest for more appropriate and effective responses, a variety of community development programs have recently been initiated. Some are designed to foster personal empowerment through self-help and mutual support; others promote community-level strategies to strengthen local control over food production." (Tarasuk, 2001, p.487) • encouraging dietitians to become educated about existing issues, participate in coalitions, conduct research, advocacy (Power, 2005) • policy change and advocacy, political party support, public health units (Mikkonen & Raphael, 2010) • analysis based on what are termed the social determinants of health (Raphael, 2002)

The UK academic and NGO sources recognized social issues such as food poverty but the government had no mention of responsibility or social change. Though the UK government

source did not imply that there were social issues, the NGO and academic literature showed that they are aware of the social issues impacting food insecurity. Table 7 below further examines how the resources are involved with food insecurity.

Table 7. Do Any of Their Activities Relate to or Address Aspects of Food Insecurity?

	US	**UK**	**Canada**
Government Resource	Yes, all programs (USDA, n.d.)	No, mainly focused on weight, affordable weight loss programs, and changing the ingredients of food (United Kingdom Government, 2010 & 2015)	Yes (Government of Canada, 2014)
Non-Government Resource (NGO)	Yes, food deserts and food access, school lunches (Trust for America's Health, n.d.)	Yes, large section of the public health plan (Press, V., 2004)	Has specific programs focused on food insecurity w/ aboriginal populations and children (Canadian Feed the Children, 2014)
Academic Literature	-Focus more on health care, not much mention of actual food insecurity or access (Adler, & Newman, 2002) -Yes, all (Gunderson, 2011) -Yes, all **(**Chilton, 2009) -Yes, all (Lee et al., 2012)	-Yes, mainly examining human rights and right to food associated with food (Dowler & O'Connor, 2012) -Yes, focused on women and children (McFadden et al, 2014) -Multiple tool kits, briefing statements, recommendations, research (Faculty of Public Health, 2014) -Yes, all of it is focused on food security and aid (Lambie-Mumford et al., 2014)	-Yes, "ad hoc charitable food assistance programs, but the programs have become institutionalized. In the quest for more appropriate and effective responses, a variety of community development programs have recently been initiated. Some are designed to foster personal empowerment through self-help and mutual support; others promote community-level strategies to strengthen local control over food production. The capacity of current initiatives to improve household food security appears limited by their inability to overcome or alter the poverty that under-pins this problem. This may relate to the continued focus on food-based responses, the ad hoc and community-based nature of the initiatives, and their origins in publicly funded health and social service sectors." (Tarasuk, 2001, p.487)

			-Yes, all of it (Power, 2005) -Yes, in the food insecurity section (Mikkonen & Raphael, 2010) -Yes, a part of it and its effects on health (Raphael, 2002)

The Canadian government and academic resources were focused on political advocacy and change while the NGO wanted to address the immediate issues currently in existence. Tarasuk (2001) reported how they are:

> …establishing ad hoc charitable food assistance programs, but the programs have become institutionalized. In the quest for more appropriate and effective responses, a variety of community development programs have recently been initiated. Some are designed to foster personal empowerment through self-help and mutual support; others promote community-level strategies to strengthen local control over food production. (p.487)

The Canadian government was the only government resource that addressed the social and political issues involved with food insecurity and the inability to adhere with nutrition and health recommendations. They demonstrate an awareness of why nutrition and health programs would not work or be a priority for food insecure populations, and how the underlying social causes needed to be addressed first. Advocacy and support for government organizations that wanted positive change in the labor force and societally were also emphasized. The US and UK also had resources that recognized social issues and need for policy change, but the government resources did not appear to acknowledge those issues.

Research Question 3

The third research question asks: What areas of opportunity does a comparative international approach highlight for US-based health and nutrition education programs? After examining resources from the US and internationally, the US has the opportunities to incorporate

some of the toolkits utilized in other successful international programs. Another area of opportunity for the US would be to change the priorities in the US. Though being sick is profitable right now, in the long term it negatively impacts our workforce and damages our economy. Prioritizing health before organizational/corporate profit would benefit the US and our society as a whole. In order to determine success and opportunities for incorporation into US programs from the international programs discussed in the literature, outcomes were also examined. For detailed information in regards to measures of success for each source, please see Table 8 below.

Table 8. What are Their Measures of Success? What Types of "Outcomes" are They Reporting?

	US	**UK**	**Canada**
Government Resource	Did not go into too many details for all of the programs, CFPCGP: ongoing projects not much outcome reporting, food initiative program: must increase fruit/vegetable consumption, promotion link: discussed budgetary and fruit and veggie consumption, no clear outcomes measured. (USDA, n.d.)	"Population data" very hard to find outcomes and vague (United Kingdom Government, 2010 & 2015)	-Program examination, evaluate outcomes for each initiative (Government of Canada, 2014)
Non- Jim Satterfield **Resource (NGO)**	Per CDC must be evidenced-based initiatives, has documented/proven before and after statistics (Trust for America's Health, n.d.)	Program evaluation, models of good practice, measuring indicators of progress (Press, V., 2004)	School attendance improved d/t lunch programs, test scores were better (Canadian Feed the Children, 2014, p. 19)
Academic Literature	-Lab results, physiological changes like height (Adler, & Newman, 2002) -Program/health outcomes, case studies for SNAP, school lunch, food banks (Gunderson, 2011) -Challenges of program success, ways to overcome the barriers **(**Chilton, 2009) - Explored impact on health care costs and food insecurity (Lee et al., 2012)	-Existing policies in place or info showing government responsibilities (Dowler & O'Connor, 2012) --Targeted pop., voucher and program access, improvement in nutrition due to voucher, low literacy (McFadden et al, 2014) -Statistical outcomes, long-term impact and changes, particularly with financial/economic aspects (Faculty of Public Health, 2014) -Observed how different types of initiatives are working (Lambie-Mumford et al., 2014)	-Monitored effects of cost, skills building, and if the current initiatives address poverty (Tarasuk, 2001) -Research that found 2 levels of food insecurity and four main components: qualitative, quantitative, psychological, and social (Power, 2005) -Data comparison, program evaluation, statistics (Mikkonen & Raphael, 2010)

			-Found how health is associated with resource allotment and social organization ” (Raphael, 2002)

The US measures of success included before and after statistics, medical results, and physiological changes. The UK used program evaluations and improvement in nutrition as indicators of success, while Canada focused on measurements such as school attendance and program outcomes to define success. The Canadian and UK programs offer many areas of opportunity for the US. The US can integrate some of the tools of success from the UK and Canadian programs such as focusing in on the target audience more and conducting more case studies with the target population.

Dimensions of health that related to the final research question included all categories (policies, social factors, health services, human biology, and individual choice). These determinants were important to consider when examining the literature because of the potential incorporation into the US system, and the need to address all areas of health. The UK and Canadian frameworks are more successful than what presently exists in the US. Particularly with Canada, which seemed to demonstrate the most awareness of the underlying social issues which affect food insecurity. I wondered during analysis of some of the literature (such as with the government information) if the activities listed were just that- only listed and not actually taking place. Were these organizations truly doing the stated activities, or were they only stating that they were for appearance or political reasons?

Because the Canadian government included social issues in their measures of success, their framework presents an example for the US. The information from the UK resources also offered ideas that can be applied to the US. What was drawn from the entire analysis and data

comparison was that some organizations, whether it be NGO, academic, or governmental, are more aware of the underlying social issues that prevent adherence to nutritional recommendations, while other resources continue to focus more on immediate program implementation without the acknowledgement of these underlying and ongoing social issues.

Contribution to the Health Care Field

This analysis supports the argument that a new approach to nutrition and health education is needed---one that takes into account the underlying social issues of a patient or population in order to prevent readmissions and improve health and quality of life. This requires a shift in the health care mindset and perspective---one that remembers to address the holistic aspect of an individual while providing health and nutrition education.

This research shows how social issues such as food insecurity are not always fully addressed. When applied to the health care field, health providers need to better address the social issues in order to allow for health opportunities to be more accessible for the population. After completing this research, I learned that conducting case studies allows for the target population to offer insight into the best ways to increase their access to health and nutrition information. Outreach programs, promotional classes, and classes at food banks allowed for low income populations to receive the health information needed. Ensuring that the participants can sustainably obtain information for a long period of time was an important part of the programs, as studies often end and the low income participants no longer receive the care that they need.

The shift in the health care mindset should take into consideration how physicians and other providers are trained and their typical economic status. The overall approach to medicine can be a dehumanizing experience. Focusing on the social issues related to health and nutrition education presents an opportunity for providers to do their jobs well while focusing more on the

patient's personal background and experiences instead of dehumanizing the patient. An unfortunate barrier to this change though, is the US health care system; as the for-profit model promotes dehumanizing. Future research should address how health care providers are trained and explore if there is any emphasis on training that is focused on the different social dimensions affecting a patient's health.

Chapter Five

Conclusion

This study has critiqued in nutrition and health education, and highlighted areas for improvement by showing that the value of acknowledging and addressing social issues can help alleviate barriers to access for nutrition and health recommendations. Nutrition and health education programs are valuable regardless of economic status. But, because of the social issues that revolve around food insecurity, there is a need for health and nutrition programs to be approached in different ways, such as through policy change and making health care more accessible to the public. Low-income populations are especially at risk for health issues, yet they continue to have limited access to resources and assistance. The existing inequality in the US perpetuates the viscous cycle of ill health. Without changing our approach to nutrition and health education there is very little hope of disrupting this vicious cycle.

Present and future nutrition and health recommendations should not be viewed as bandages or temporary fixes, but societal issues should be addressed with as much emphasis if there is to be any sustainable change. I learned that the US is extremely monetary based compared to other countries, even if it means that the health of the society suffers. Specifically,

after reading the information from the UK and US, a more preventative approach that incorporates all aspects of a person is needed to change the culture of poverty and this viscous cycle. Social issues such as food insecurity and financial constraints need to be better addressed in order to improve the health and quality life of our population or the worsening health will remain while our resources become more drained and our economy continues to suffer. This would require a shift in the perspectives and priorities in our society, meaning human life and the health of our society comes before monetary gain. This means that we should treat some problems at a societal level not an individual one.

Recommendations by Profession

In this final section, I explain recommendations for scholars, nutrition educators, policy makers, and nutrition and health program designers. First, my recommendations for scholar are that more research and international comparison is needed in order to accurately measure how different countries (particularly the ones with highly rated health care) address the underlying social issues affecting food insecurity. A broad range of literature such as evidence-based studies and literature reviews should be used, including economic, political, and social science. Comparing all of the countries with top-rate health care systems should also be explored. Further questions to explore include examining health care systems, geographical locations such as urban versus rural, types of health and nutrition programs, and additional comparison of other countries.

This research suggests that nutrition and health educators need to alter their perspectives to view a patient and population more holistically. If we continue to view people as just numbers, our society will become sicker. Addressing the social issues that affect a patient will

allow for better treatment and a healthier population. Nutrition educators should always remain updated with the most recent health care policies and politics, as they are always changing.

Based on this research, it is recommended that policies should be put in place to improve access to health and nutrition information for low-income populations. An adjustment needs to be made in the government and for policy-makers that does not prioritize financial gain before human health and human life. Further damage in our society and workforce will be caused if we the inequality aspect of health care is not addressed.

Program designers for nutrition and health education programs have many opportunities to utilize techniques from successful national and international health and nutrition programs, particularly when food insecurity and social issues are already values embedded in their existing programs. Programs that have been proven statistically successful and sustainable should be implemented in the US, if possible, particularly if endorsed by credentialed intuitions like the Centers for Disease Control (CDC) or National Institutes of Health (NIH). Even with the different social and political contexts, parts of these programs can be gleaned and used in the US. Regardless, social issues should always be taken into account when creating new or modifying existing health and nutrition programs.

This thesis will be presented to the dietetic supervisor of the Food and Nutrition Department at Legacy Hospital, Salmon Creek in order to reduce the readmission rates of our patients and adjust our teaching and educational techniques, thus improving the hospital and Legacy's readmission statistics, improving the health of our communities, and positively impacting the nation and workforce as a whole.

References

Adler, N.E. & Newman, K. (2002). Socioeconomic disparities in health: Pathways and policies. *Health Affairs*, 21:60-76. doi: 10.1377/hlthaff.21.2.60

American Heart Association. (2015). *Increased spending needed for research on chronic disease prevention.* Retrieved from http://blog.heart.org/increased-spending-needed-research-chronic-disease-prevention/

Appleby, J. (2010). *Unnecessary hospital admissions targeted by new payment plan*. Retrieved from http://khn.org/news/hospital-admissions/

Ball, J., DesMeules, M., Kwan, A., Jacobsen, L., Luo, W., & Jackson, B. (2010). *Investing in prevention: The economic perspective.* Retrieved from http://www.phac-aspc.gc.ca/ph-sp/preveco-ackrem-eng.php

Bodenheimer, T., Chen, E., & Bennett, H.D. (2009). Confronting the growing burden of chronic disease: Can the US health care workforce do the job? *Health Affairs*, 28 (1): 64-74. doi: 10.1377/hlthaff.28.1.64

Boundless. (n.d.). *Health care in the U.S*. Retrieved from https://www.boundless.com/sociology/textbooks/boundless-sociology-textbook/health-and-illness-19/health-care-in-the-u-s-135/health-care-in-the-u-s-742-9634/

Boyce, T., Peckham, S., Hann, A., & Trenholm, S. (2010). A pro-active approach: Health promotion and ill-health prevention. *The King's Fund*. Retrieved from http://www.kingsfund.org.UK/sites/files/kf/Health_promotion.pdf

Canadian Feed the Children. (2014). *Investing for impact.* Retrieved from http://www.canadianfeedthechildren.ca/who/financials

Canadian Foundation for Health Care Improvement. (2012). *Better Health: An analysis of public policy and programming focusing on the determinants of health and health outcomes that are effective in achieving the healthiest populations.* Retrieved from http://nccdh.ca/resources/entry/better-health

CBC News. (2006). Public vs. private health care. Retrieved from http://www.cbc.ca/news2/background/healthcare/public_vs_private.html

Chilton, M. (2009). A rights-based approach to food insecurity in the United States. *American Journal of Public Health,* 99 (7):1203-1211.

Chinni, D. (2011). *The socio-economic significance of food deserts*. Retrieved from http://www.pbs.org/newshour/rundown/the-socio-economic-significance-of-food-deserts/

Clark, N.M., Feldman, C.H., Evans, D., Levison, M.J., Wasilewski, Y., & Mellins, R.B. (1986). The impact of health education on frequency and cost of health care use by low-income children with asthma. *Journal of Allergy and Clinical Immunology,* 78(1):108-115. doi:10.1016/0091-6749(86)90122-3.

Darmon, N., & Drewnowaki, A. (2008). Does social class predict diet quality? *American Journal of Clinical Nutrition,* 87(5): 1107-1117.

Davis, K., Stremikis, K., Schoen, C. & Squires, D. (2014). *Mirror, mirror on the wall, 2014 update: How the U.S. health care system compares internationally.* Retrieved from http://www.commonwealthfund.org/publications/fund-reports/2014/jun/mirror-mirror

Deakin, T.A., Cade, J.E., Williams, R., & Greenwood, D.C. (2006). Structured patient education: the diabetes X-PERT programme makes a difference. *Diabetic Medicine,* 23(9): 944–954. doi: 10.1111/j.1464-5491.2006.01906.x

DeVoe, J, E., Baez, A., Angier, H., Krois, L., Edlund, C., & Carney, P.A. (2007). Insurance plus access does not equal health care: Typology of barriers to health care access for low-income families. *Annals of Family Medicine,* 5(6):511-518.

Dixon-Fyle, S., Gandhl, S., Pellathy, T., & Spatharou, A. (2012). *Changing patient behavior: the next frontier in health care value.* Retrieved from http://webcache.googleusercontent.com/search?q=cache:vMS457xDVCQJ:health care.mckinsey.com/changing-patient-behavior-next-frontier-health care-value+&cd=1&hl=en&ct=clnk&gl=us

Dougherty, CJ. (1992). The excesses of individualism. For meaningful health care reform, the United States needs a renewed sense of community. *Health Progress, 73*(1): 22-28.

Dowler, E. & O'Connor, D. (2012). Rights based approaches to addressing food poverty and food insecurity in Ireland and UK. *Social Science & Medicine, 74*(1):44-51. http://dx.doi.org/10.1016/j.socscimed.2011.08.036

Dugan, E. (2014). *The food poverty scandal that shames Britain: Nearly 1m people rely on handouts to eat – and benefit reforms may be to blame*. Retrieved from http://www.independent.co.uk/news/uk/politics/churches-unite-to-act-on-food-poverty-600-leaders-from-all-denominations-demand-government-u-turn-on-9263035.html

Faculty of Public Health of the Royal Colleges of Physicians in the United Kingdom. (2014). *UK Faculty of Public Health response to the All Party Parliamentary inquiry into hunger and food poverty in Britain.* Retrieved from http://www.fph.org.uk/uploads/UK%20Faculty%20of%20Public%20Health%20-%20APPG%20Food%20Poverty%20June%202014%20Final.doc.

Government of Canada. (2014). *Food security.* Retrieved from http://cbpp-pcpe.phac-aspc.gc.ca/public-health-topics/food-security/

Grosios, K., Gahan, P.B., & Burdbidge, J. (2010). Overview of health care in the UK. *EPMA Journal* 1(4): 529–534. doi: 10.1007/s13167-010-0050-1

Gunderson, C. (2011). *Addressing U.S. food insecurity*. Retrieved from http://www.hungerfreecommunities.org/resource-library/addressing-u-s-food-insecurity-an-overview-of-the-effectiveness-of-various-approaches-to-addressing-food-insecurity-in-the-united-states/

Health food. (n.d.). In *Dictionary.com*. Retrieved from http://www.merriam-webster.com/dictionary/hacker

Hiltzik, M. (2014). *The U.S. health care system: worst in the developed world*. Retrieved from http://www.latimes.com/business/hiltzik/la-fi-mh-the-us-health care-system-20140617-column.html

IndexMundi. (2014). *Diabetes prevalence (% of population ages 20 to 79): Country ranking.* Retrieved from http://www.indexmundi.com/facts/indicators/SH.STA.DIAB.ZS/rankings

Kaiser Permanente. (2015). *Your prevention plan*. Retrieved from https://healthy.kaiserpermanente.org/health/care/!ut/p/a0/TYyxEoMgEAW_xcJSzzJjl68w0DA3zAUdAty8EPx9SWe3u8WSpRfZzO0IXI-S dPdeMlVsCqkdeqZNrJkFR wSk8ll8ux3-beo7rsXVP-rDvIWQEAm6lwQxuV20JQe53MYLjbwpYI!/

Lambie-Mumford, H., Crossley, D., Jensen, E., Verbeke, M., & Dowler, E. (2014). *Household food security in the UK: A review of food aid*. Retrieved from https://www.gov.uk /government/ uploads/system/uploads/attachment_ data/file/283071/household-food-security-uk-140219.pdf.

Lee, J.S., Gundersen, C., Cook, J., Laraia, B., & Johnson, M.A. (2012). Food insecurity and health across the lifespan. *American Society for Nutrition*, 3:744-745. doi: 10.3945/an.112.002543

Leon-Guerrero, A. (2015). Social problems: Community, policy, and social action (4th ed.). Los Angeles: Sage.

Levine, J.A. (2011). Poverty and obesity in the U.S. *Diabetes*, 60 (11): 2667-2668. doi: 10.2337/db11-1118

Mandal, A. (2014). *Disparities in access to health care*. Retrieved from http://www.news-medical.net/health/Disparities-in-Access-to-Health-Care.aspx

McFadden, A., Green, J.M., Williams, V., McLeish, J., McCormick, F., Fox-Rushby, J., & Renfrew, M.J. (2014). Can food vouchers improve nutrition and reduce health inequalities in low-income mothers and young children: a multi-method evaluation of the experiences of beneficiaries and practitioners of the Healthy Start programme in England. *BMC Public Health*, 14:1-13.

Merriam-Webster. (n.d.) *Inequality*. Retrieved from http://www.merriam-webster.com/dictionary/inequality

Mikkonen, J. and Raphael, D. (2010). *Social determinants of health: The Canadian facts.* Toronto: York University School of Health Policy and Management.

Myers, M. D. (2015). *Qualitative research in information systems.* Retrieved from http://www.qual.auckland.ac.nz/.

National Bureau of Economic Research. (n.d.). *Comparing the U.S. and Canadian health care systems*. Retrieved from http://www.nber.org/bah/fall07/w13429.html

National Economic and Social Rights Initiative. (n.d.). *What is the Human Right to Food?* Retrieved from https://www.nesri.org/programs/what-is-the-human-right-to-food

Nordquist, R. (2016). *Literature review (research): Glossary of grammatical and rhetorical terms*. Retrieved from http://grammar.about.com/od/il/g/literaturereviewterm.htm

Nunavut Roundtable for Poverty Reduction. (2014). *Nunavut food security strategy and action plan 2014-16*. Retrieved from http://makiliqta.ca/en/action-plans/food-security-strategy-

Office of Disease Prevention and Health Promotion. (2010). *Determinants of health*. Retrieved from https://www.healthypeople.gov/2020/about/foundation-health-measures/Determinants-of-Health

Petty, S. (2014). *The neoliberal restructuring of health care in the US.* Retrieved from http://isreview.org/issue/94/neoliberal-restructuring-health care-us

Population Reference Bureau. (2013). *U.S. low-income working families increasing.* Retrieved from http://www.prb.org/Publications/Articles/2013/us-working-poor-families.aspx

Power, E. (2005). Individual and household food insecurity in Canada: Position of dietitians of Canada. *Canadian Journal of Dietetic Practice and Research*. 66(1):43-6.

Press, V. (2004). Developing a local nutrition and food poverty strategy. In *Nutrition and Food Poverty Toolkit.* Retrieved from http://www.fph.org.uk/uploads/prelims.pdf

Raphael, D. (2002). *Poverty, income inequality, and health in Canada*. Toronto: York University School of Health Policy and Management. Retrieved from http://webcache.googleusercontent.com/search?q=cache:aORG7NVW7IsJ:www.povertyandhumanrights.org/docs/incomeHealth.pdf+&cd=2&hl=en&ct=clnk&gl=us

Resnik, D.B. (2007). Responsibility for health: personal, social, and environmental. *Journal of Medical Ethics*, 33(8): 444–445. doi:10.1136/jme.2006.017574

Reus, B. (2006). *Epistemological orientation.* Retrieved from https://bottomup.wordpress.com/research-methodology/epistemological-orientation/

Sabin, J.E. (2012). Individualism, solidarity, and U.S. health care. *AMA Journal of Ethics, 14(*5): 415-418.

Sedghi, A. (2014). *How obese is the UK? And how does it compare to other countries?* Retrieved from http://www.theguardian.com/news/datablog/2014/may/29/how-obese-is-the-uk- obesity-rates-compare-other-countries)

Sen, A. (2015). *Universal health care: The affordable dream.* Retrieved from http://www.theguardian.com/society/2015/jan/06/-sp-universal-health care-the-affordable-dream-amartya-sen

Swiss National Centre of Competence in Research. (2015). *Is food security an issue for Switzerland?* Retrieved from http://www.nccr-trade.org/news-archive/is-food-security-an-issue-for-switzerland/

Tarasuk, V. (2001). A critical examination of community-based responses to household food insecurity in Canada. *Health Education & Behavior, 28*(4): 487-499. doi: 10.1177/109019810102800408

Tasch, B. (2015). *The 23 richest countries in the world*. Retrieved from http://www.businessinsider.com/the-23-richest-countries-in-the-world-2015-7

Telesure. (2014). *Health care Systems in Canada, U.S. and Cuba.* Retrieved from http://www.telesurtv.net/english/telesuragenda/Health care-Systems-in-Canada-U.S.-and-Cuba-20140723-0078.html

Trust for America's Health. (n.d.) *Policy and advocacy.* Retrieved from http://healthyamericans.org/policy/

U.S. Department of Health and Human Services. (n.d.). *Health literacy and health outcomes*. Retrieved from http://health.gov/communication/literacy/quickguide/factsliteracy.htm

United Kingdom Government. (2010). *Policy paper: Healthy lives, healthy people: Our strategy for public health in England*. Retrieved from https://www.gov.uk/government/publications/healthy-lives-healthy-people-our-strategy-for-public-health-in-england

United Kingdom Government. (2015). *Policy paper: 2010 to 2015 government policy: Obesity and healthy eating.* Retrieved from https://www.gov.uk/government/publications/2010-to-2015-government-policy-obesity-and-healthy-eating/2010-to-2015-government-policy-obesity-and-healthy-eating

University of Georgia. (n.d.). *What is content analysis?* Retrieved from https://www.terry.uga.edu/management/contentanalysis/research/

University of Wisconsin. (2011). *Nutrition education program reaches low-income families across the state.* Retrieved from http://flp.ces.uwex.edu/files/2012/04/WNEP2011.pdf

USDA. (n.d.) *Hunger & food security programs.* Retrieved from http://nifa.usda.gov/program/hunger-food-security-programs

Williams, C.L., Carter, B.J., & Eng, A. (1980). The "know your body" program: A developmental approach to health education and disease prevention. *Preventive Medicine*, 9(3): 371–383. doi:10.1016/0091-7435(80)90231-5

World Bank. (2014). *Poverty and health*. Retrieved from http://www.worldbank.org/en/topic/health/brief/poverty-health

World Cancer Research Fund International. (n.d.). *Data for cancer frequency by country*. Retrieved from http://www.wcrf.org/int/cancer-facts-figures/data-cancer-frequency-country

World Health Organization (n.d.). *Food security*. Retrieved from http://www.who.int/trade/glossary/story028/en/

World Public Library. (n.d.). *Right to food*. Retrieved from http://www.worldlibrary.org/articles/right_to_food#cite_note-14

Wyse, S.E. (2011). *What is the difference between qualitative research and quantitative research?* Retrieved from http://www.snapsurveys.com/blog/what-is-the-difference-between-qualitative-research-and-quantitative-research/

Your Dictionary. (2016). *Social problem*. Retrieved from http://www.yourdictionary.com/social-problem