

Healthy Eating Standards and Communication Strategies:
An Assessment of California Polytechnic State University's Campus Dining

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Chapter 1

Introduction

Statement of the Problem

This study focuses on various aspects of the lack of healthy food options on college campuses, specifically looking at food offered at the dining facilities at California Polytechnic State University in San Luis Obispo. At the most basic level, there is a lack of education about healthy food on college campuses and how to manage weight as an incoming student. In a study looking at college weight gain conducted from 1980 to 2015, researchers found “that almost two thirds of students gain weight during their first year of university and they gained almost 7.5 lbs. Furthermore, about one in 10 students gained at least 15 lbs” (Vadeboncoeur, 2015).

Background of the Problem

While a lack of healthy food options has always been a problem, it has recently come to the public’s attention because of the increased research by health professionals, faculty, and students at universities. Professionals are becoming especially aware of marketing efforts toward food consumers. Food companies focus a lot of marketing and advertising efforts on foods with added value. “Added value” refers to how marketable the product is to consumers, and not its nutritional content (Oliver, 2015). With this research available, education needs to be increased on college campuses to make a change in food choices and diet.

Purpose of the Study

The study is based on the health and nutrition on college campuses and the communication methods utilized to educate university communities more effectively. Cal Poly is the subject of the study and its own health efforts in campus dining will be compared with

programs at similar campuses to serve as a model. The study will take in factors such as price point of food, convenience of food orders and distribution on a large scale, and feasibility of implementation at a public university. The study is meant to increase the public's awareness of the lack of healthy food on campus to change the behavior of both the food services and consumers on campus. The study aims to serve as a foundation so people can be aware of the problem, accept it, and have a behavioral change.

Setting for the Study

This study will be done as part of a data collection and analysis for a Senior Project at California Polytechnic University in San Luis Obispo, California. This study will be executed using data from recent university dining studies as well as interviews of experts in the following fields: food science and nutrition, nutritional anthropology, and campus health. The interviewees Anthropology professor, Dr. Dawn Neill, Cal Poly's Registered Dietician, Megan Coats, and fourth year Cal Poly Applied Nutrition student, Sofia Sanchez Porush. The experts will be asked similar questions related to university food policy and communication. The interviews are designed to answer the research questions and fill the gap in previous literature and studies on the lack of healthy food on college campuses.

Research Questions

The following research questions were developed to answer disparities in existing literature on the topic of implementing healthy food into college dining. Each question was designed to assess the current food environment at Cal Poly and acquire necessary data from professionals in the fields of nutritional anthropology, nutrition, and campus health.

1. What is considered healthy food? What is the national standard?
2. What are the main causes of weight gain in college?
3. What effect do marketing and communications efforts/strategies have on consumers' food choices?
4. What is an unsuccessful model for healthy eating standards at the university level?
5. What are successful healthy university dining systems?

Definition of Terms

Attachment Theory: a theory proven to contribute to current marketing strategies based on the quality of attachments between a consumer and a brand by creating trustworthy, loyal relationships with the consumer (Thomson, 2006, p. 105).

Brand: a name, term, sign, symbol, or design or combination of them intended to identify the goods or services and differentiate them from competitors (Kahle & Kim, 2006, p. 4).

Brand Image: a single image perceived by the consumer based on consistent associations the consumer has with the brand name (Raugust, 2010, p. 228)

Health Belief Model: the most commonly used theory in health education and promotion. The underlying concept is that health behavior is “determined by personal beliefs or perceptions about a disease.” The four perceptions of perceived seriousness, perceived susceptibility, perceived benefits, and perceived barriers can be used to explain the health belief model (Barlett & Jones, 2002).

NEMS: “Nutritional Environment Measures Study in Restaurants.” The NEMS tools are observational measures that assess the community and consumer nutrition environments in food

outlets, specifically stores and restaurants. The measures tend to focus on the availability of healthful choices, price, and quality (“Nutritional Measures Survey,” n.d.).

Organization of the Study

Chapter 1 included the background of the problem, purpose of the study, setting of the study, research questions, and a definition of terms. Chapter 2 will identify the health food standards and studies behind healthy food on college campuses by reviewing current literature on the topic. Chapter 3 will evaluate the methodology of the study. In Chapter 4, the findings will be presented and organized based on the original research questions. The data will then be analyzed compared to the current literature on the topic. Lastly, Chapter 5 will include a summary of the study and recommendations for professionals in food marketing, communication, anthropology, food and nutrition, and community outreach to develop a healthy food implementation strategy for California Polytechnic University in San Luis Obispo.

Chapter 2 *Literature Review*

An Assessment of What Is Considered Healthy Food

According to the USDA Center for Nutrition Policy and Promotion (CNPP) (2015), the standard of healthy eating is to “Consume a healthy eating pattern that incorporates all foods and beverages within an appropriate calorie level.” The CCNP published the 2015-2020 Dietary Guidelines for Americans through the U.S. Health Department. These guidelines are the national standard for healthy food and diet.

“The dietary guidelines serves as the evidence-based foundation for nutrition education materials that are developed by the Federal Government for the public. For example, Federal dietary guidance publications are required by law to be consistent with the *Dietary Guidelines*” (“Guidelines,” 2015).

An overview of a daily healthy eating pattern from the U.S. guidelines includes vegetables from all sub-groups-dark green, red and orange, and starchy. Fruits eaten should be preferably whole and at least of all grains are recommended to be whole grain. Dairy consumed should be fat-free, or low-fat, milk, cheese, and yogurt. Suggested proteins include seafood, lean meats and poultry, eggs, legumes, nuts, seeds, and soy products (“Guidelines,” 2015).

Vegetable intakes relative to recommendations are slightly higher during the adult years, but intakes are still below recommendations. One realistic option is to increase the vegetable content of mixed dishes while decreasing the amounts of other food components that are often overconsumed, such as refined grains or meats high in saturated fat and/or sodium. Other

strategies include always choosing a green salad or a vegetable as a side dish and incorporating vegetables into most meals and snacks.

Average intakes of fruits, including juice, are lowest among girls ages 14 to 18 years and adults ages 19 to 50 years. To help support healthy eating patterns, most individuals in the United States would benefit from increasing their intake of fruits, mostly whole fruits, in nutrient-dense forms.

Average intakes of whole grains are far below recommended levels across all age-sex groups, and average intakes of refined grains are well above recommended limits for most age-sex groups. Average intakes of dairy for most age-sex groups are far below recommendations of the Healthy U.S.-Style Pattern.

Average intake of total protein foods is close to recommendations, while average seafood intake is below recommendations for all age-sex groups. Shifts are needed within the protein foods group to increase seafood intake, but the foods to be replaced depend on the individual's current intake from the other protein subgroups.

Average intakes of oils are below the recommendations for almost every age-sex group. However, intakes are not far from recommendations. In the United States, most oils are consumed in packaged foods, such as salad dressings, mayonnaise, prepared vegetables, snack chips (corn and potato), and as part of nuts and seeds. Oils also can be used in preparing foods such as stir-fries and sautés. The most commonly used oil in the United States is soybean oil.

To maintain a nutritional intake of food and calories, “consume less than 10 percent of calories per day from sugars and consume less than 10 percent of calories per day from saturated fats” (USDA, 2015). The Institute of Medicine (IOM) has set the Tolerable Upper Intake Level

(UL) on added sugar intake. The recommendation to limit intake of saturated fats to less than 10 percent every day stems from evidence that replacing saturated fats with unsaturated fats is correlated with reduced risk of cardiovascular disease. For the average American, there are not enough calories left after eating all recommended food groups to consume 10 percent of daily calories from added sugars and 10 percent of calories from saturated fats without exceeding calorie limits. In addition, the suggestion to limit intake of sodium to less than 2,300 mg per day is the UL for individuals 14 years or older set by the IOM.

Weight Gain In College

In a study looking at college weight gain conducted from 1980 to 2015, researchers found “that almost two thirds of students gain weight during their first year of university and they gained almost 7.5 lbs. Furthermore, about one in 10 students gained at least 15 lbs” (Vadeboncoeur, 2015).

15 studies were conducted in the United States, five in Canada and one each in the United Kingdom and Belgium. The United Kingdom and Belgium had lower weight gain than in the United States and Canada; but inference cannot be made due to the small sample of studies. Canadian and US studies did not significantly differ in weight gain with both having a pooled weight gain of around 7.5 lbs.

These findings indicate that more than two thirds of the weight gain in first year populations happens early in their first university year. “This is an important area for future research as if we were able to track weight change in individuals more confidentially, it could demonstrate whether this weight gain is nonlinear and predominantly within the first 4 months as suggested from these findings, highlighting the importance of early prevention by universities.

For effective health promotion efforts, further research should be conducted to evaluate individual level trends and explore this finding further” (Vadeboncoeur, 2015).

A shift from topic focused health promotion to a more holistic approach to health promotion including fostering healthy social and built environments are suggested methods to help reduce weight gain. As the study shows, health promotion and health intervention seem to be critical in the first university year. Universities are potential key health promoters and shapers of student health.

According to a study by Oregon State University (OSU) researchers, college students do not eat enough fruits and vegetables per day-in some cases, they do not eat any at all. The study surveyed the eating habits of 582 college students, a majority of which were in their first year of college. Males were reported to have five servings of fruits and vegetables per week, while females had four. Females had a higher fiber intake and overall better eating habits than males. However, both males and females consumed more than 30 percent of their calories from fat per day, which greatly exceeds the national recommendation of no more than 30 percent of calories from fat per week. These surveyed students came from OSU, where healthy food is available in the dining facilities. This shows that there is a lack of health education and students are having more trouble being “self-sustaining,” (Ebbeck, 2011).

Food Marketing Effects On Consumers’ Choices and Eating Habits

All food distribution businesses, from small farms, to multinational food corporations, rely on marketing to promote products and build long-term relationships with customers. Food marketing is seen through advertising, raising brand awareness, and even paying stores for ideal shelf space. Food companies focus a lot of marketing and advertising efforts on foods with added

value. “Added value” refers to how marketable the product is to consumers, and not its nutritional content. Consumers will pay more for added textures, colors, and even unusual shapes.

An example used in this study is corn and corn sweeteners in a generic box of corn flakes. The price for the addition is worth four cents, while the box of cereal sells for over four dollars. However, “Unlike the ingredients common in highly processed foods, little value can be added to most fruits and vegetables other than by freezing or cutting them.” This is one example of why fruits and vegetables are not advertised as heavily as processed foods. They don’t have the same “value” in the eyes companies.

In the U.S., food manufacturers, restaurants, and stores spend roughly \$11 billion annually on direct advertising, including television, magazine, radio and internet ads. Most of these advertisements are convenience foods, such as candy, snacks, and soft drinks, things Americans already consume in excess. However, these food manufacturers only spent 2 percent (\$159 million) of the annual advertising budget to promote the sales of produce and grains and the USDA only spent \$300 million on nutrition education.

According to (Oliver, 2015), “Having purchased a product previously, a consumer has more than likely developed an attitude toward it...an attitude can form develop based on prior information without experience, as when consumers develop biases for or against brands based on their image (or the manufacturer’s reputation) in the marketplace” (15). Consumers now have an expectation developed before their next product encounter.

Once a product is used and performance is clear, the consumer is able to compare actual performance with expectations, needs, or other standards, known as the expectation-performance

discrepancy. The consumer may also now be able to make a judgment on perceived quality as well as a judgment of value, which is often in line with cost or price of the final product. “The sales of a product increase with the visibility and repetition of the advertisements promoting it, raising questions of how advertising efforts are affecting consumers’ health,” (“Teaching the Food System,” 2010).

Public health experts have advocated to change the labeling and marketing of food to help Americans make more educated, informed decisions. Some representatives from food companies and manufacturers have opposed these propositions and argue that consumer choices are a personal responsibility and that efforts to influence food choices actually infringes the right to a free market. These same companies have a strong influence over lobbying in the federal government.

Example of Successful Implementation and Unsuccessful Implementation of Healthy Food on College Campuses.

Unsuccessful: California Polytechnic State University (Cal Poly)

A Cal Poly student research team conducted a study of campus dining in April 2015 and was guided by Cal Poly kinesiology professor Marilyn Tseng. “The study found healthy options limited at Cal Poly,” (McCarthy, 2016). In fact, only 12 percent of the 314 main entrees served at the 18 campus dining venues were classified as healthy by national standards. Out of this entree selection, only 11 of the 31 main dish salads were considered healthy. The dining services are controlled by the Cal Poly Corporation.

Representatives from the corporation had doubts about these findings and how the research was conducted. However, in an editorial released by Mustang News the following week,

it was reiterated that the study was overseen by two P.h.D.-level experts in the field and the research was published in the Center for Disease Control and Prevention’s online journal. This editorial released by the paper discussed how shortly after the original article ran, Cal Poly dining services cut all print advertising with the student-run newspaper. “Campus dining has paid for two 1/4 -page advertisements in every regular edition of Mustang News, totaling approximately \$4,000 per month-more than half of our editorial payroll” (Mustang News, 2016).

After the story ran, Campus Dining pulled all ads, gutting Mustang News financially for publishing news it didn’t like” (Mustang News, 2016). Campus Dining will continue to run online ads, which will bring in approximately 14 percent of the profit their print ads. The editorial expressed the paper’s disappointment in Cal Poly Corporation for punishing students for writing a negative article about their services. “Apparently protecting Campus Dining’s already less-than-sterling reputation is more important than supporting the First Amendment at Cal Poly — not to mention disrespecting the quality of the work done by the nutrition students,” (Mustang News, 2016).

A follow-up article published in March 2016 by Mustang News explained that while the number of healthy food options found in the campus dining assessment was low, the study also showed that it is on par with numbers from universities across the nation. It should be noted that this particular article featured in Mustang News was sponsored by the Cal Poly Corporation, so there was a bias to the information provided. The article mentioned that Chick-fil-A is consistently voted by students as the number one food spot on campus. However, Campus Dining then went on to list its efforts to increase the number of healthy food options at Cal Poly. Campus Dining was originally accredited for its gluten-free kitchen and passed a two-year audit.

In addition to the new gluten-free options, dining venues also offer over 100 local and sustainable products, including Cal Poly products. Campus Dining also hired a registered dietitian, Megan Coats, and created a Wellness Office as a resource for more information on the sustainability efforts of the university. A Master Plan is also in the works and will combine the input of students, faculty, staff, the corporation, and President Armstrong. This plan is called “the 2022 vision” to create world-class dining facilities.

In May 2016, Cal Poly Campus Dining hosted an open forum about to get feedback from the campus about the dining services on campus and how the corporation can improve in the future to better meet student’s needs. The event, titled, “State of Our Plate,” was lead by panelists from different majors and disciplines at Cal Poly. Cal Poly Associate Professor, Dawn Neill started the discussion. Neill is the co-author of the Assessment of a University Campus Food Environment, which was later published on the CDC’s online blog. According to the report by Mustang News on the event, Neill, along with other researchers used the Nutrition Environment Measures Survey (NEMS) to evaluate the “nutritional quality, availability and food price of food at restaurants and grocery stores” (Ahmed, 2016). Using this evaluative system, Cal Poly scored a 26 out of a maximum of 97. Healthy entrees were available at nine of the 18 dining establishments on campus. A healthy meal was considered to be one under 800 calories with less than 30 percent fat and less than 10 percent saturated fat. This totals to only 12 percent of food on campus to be considered “healthy.” Michael Albright, another panelist representing Campus Dining, spoke about the Fall 2016 Transition Plan, an initiative to improve the dining offerings at Cal Poly. Two new food trucks along with a Starbucks truck will be added to campus. Asian, Cal-Mex, and an American burger concept will be new options at the dining venue, the Avenue.

The current on-campus pizza restaurant, Ciao, will be converted into a pub and will continue to serve pizza and other new options. The on-campus sandwich shop, Sandwich Factory, will start to include a wider variety of “artisanal” meats and breads. An ice cream parlor will also be built to sell Cal Poly ice cream, as well as fresh produce for the salad bar. According to the article, when the panel opened up questions to the audience, a member of Real Food Collaborative asked why Campus Dining has failed to reach out to student groups for input on the issues with food. Real Food Collaborative is a Cal Poly student club, whose initiative is to have 20 percent or more the food on campus to be locally and sustainably grown. The article ended by stating that “The forum allowed Campus Dining to understand the campus climate in regards to nutritious and sustainable food options at Cal Poly,” (Mustang News, 2016).

Successful: City University of New York (CUNY)

Through the Healthy CUNY initiative, the university has made healthy eating on campus a big priority, (Massa, 2012). The purpose of the 2011 campaign was to become the healthiest urban university in America by this year. There were some concerns from cafeteria management about the expense of increasing healthy foods on-campus, for fear of losing money on any new initiatives. In the first two years of the project, over 125 students were trained to become advocates for more healthy food on CUNY campuses.

Based on the research for the project, the university released recommendations for universities nationwide, officially supported by the Center for Disease Control (CDC), (Massa, 2012). In a 2015 press release, it was announced that the City of New York University School of Public Health (CUNY SPH) was selected to evaluate U.S. community programs that promote healthy, active lifestyles, but are sponsored by major food and beverage companies. The study

was meant to show that,“...the food and beverage industry currently spends millions of dollars each year investing in community health programs. To date, however, no standardized metrics have been developed to measure the impact of these industry-supported programs,” (Palmedo, 2015). The overall goal of the research through the initiative is to better maximize industry investment to promote health in communities.

University of California Santa Cruz and University of California Santa Barbara Dining:

On the UC Santa Cruz Dining website, it states that the university “takes [its] commitment to being sustainable seriously. All UC Santa Cruz Dining locations have been awarded the Green Business certification by the City of Santa Cruz.” In February 2012, the Chancellor of Santa Cruz pledged UC Santa Cruz to purchase food that “not only truly nourishes but also acknowledges producers, consumers, communities, and the earth. UC Santa Cruz was one of the first universities to sign the initiative committing 40 percent of its food to be “real” by 2020. As of 2013, 28 percent of the food on campus was considered “real.” Zero Waste, composting, “trayless dining,” and sea-to-table efforts are also strong on the campus (“UCSC Housing,” 2015). UC Santa Barbara dining “customers” have access to an online nutrition program, NetNutrition, which allows them to filter by specific dietary needs and allergens to create meals that are right for their body. Through this online service, customers can also view all labels and nutritional facts of all foods offered on campus. This is all in an effort to help students learn how to better meal plan and become conscious of food servings and caloric values (“Nutrition Talk,” 2013).

Chapter 3

Methodology

This chapter presents the methods used to collect data for the study including the data sources, collection and presentation of the data, limitations, and delimitations.

Data Sources

For this study, experts from the fields of nutritional anthropology, food science and nutrition, and campus health were interviewed based on one questionnaire. The questionnaire was specifically designed to answer the original research questions regarding the lack of healthy food on Cal Poly's campus.

Participants

The nutritional anthropology expert selected for the study was Dr. Dawn Neill, an assistant professor of anthropology at Cal Poly. Along with nutritional anthropology, Dr. Neill specializes in human behavioral ecology, ecology of obesity, and urban anthropology in South Asia, Fiji, and the U.S. Dr. Neill earned her masters in nutritional sciences at the University of Washington and then went on to complete her P.h.D in biological anthropology at the same institution. The campus health expert was Cal Poly Campus Dining's registered dietitian, Megan Coats. Coats received her bachelor of science in Food Science and Human Nutrition from Washington State University and went on to earn her master of science in Nutrition and Dietetics. She now works as the registered dietician and sustainability coordinator for Campus Dining at Cal Poly and has been with the university for three years. The food science and nutrition expert interviewed was Cal Poly Applied Nutrition senior, Sofia Sanchez Porush. While in school, Sofia worked as a research assistant in the Nutrition department for the past two years.

Sofia was recently accepted into Cal Poly's masters program for Applied Nutrition to become a registered dietician.

Interview Design

The following questions and probes in the questionnaire were asked to each of the experts and served as data sources for the study:

1. What is the national standard for healthy food and how "healthiness" is measured? How is the food at Cal Poly measured?
2. What are healthy foods on college campuses? What types of specific foods have been made available at Cal Poly? Are these healthy foods easily accessible and affordable? How are these healthy foods priced in comparison to less healthy options?
3. In your opinion, what deters students from choosing healthy meals over less healthy options?
4. How would you compare Cal Poly's current dining services to how it was in the past?
5. Do you think big enough strides have been made to better the food system here at Cal Poly? Do you think a lack of healthy food is a problem on campus?
6. Where are the healthy foods on campus located? Do you think these are where a large number of students are likely to go?
7. What do you think could be done to increase the consumption of healthy foods on campus?

Data Collection

The method of data collection for this study was five individual interviews with each expert. The interviews were conducted during May 2016 and lasted approximately 30 minutes

each. During the interviews, experts were asked questions from the questionnaire, which was designed to provide answers to the original research questions while gaining insight into current personal and celebrity branding strategies.

Data Presentation

The data collected during each interview was cataloged using a digital audio recorder as well as written verbatim notes from during and after the interview to supplement these recordings and document any additional information that could help clarify the context of the responses. This method of collecting data ensures that the data is presented in the most clear and objective nature possible.

Limitations

The limitations of the study were based on the time constraint of the project and the interview process. The study took place in a little less than a 3-month period and was taken as a capstone Journalism course in addition to three other upper-division classes. Due to this short amount of time, there was a limit to the scope and depth of the project.

Delimitations

The study focused solely on Cal Poly's lack of healthy food options through campus dining instead of a broader look at the California State University system. These time constraints as well as the location of the university also caused a limitation to the interview process and interviewees chosen for the study, so interviewees were kept to experts at Cal Poly only. The questionnaires were decidedly focused on first defining what healthy food is, whether or not it is offered at Cal Poly, and what communication tactics have been utilized to educate the public at the university. Additionally, while interviews with Dawn Neill and Megan Coats were in-person,

my interview with Sofia Sanchez Porush was conducted through a stream of emails, because due to her busy work/school schedule, she could not meet for a face-to-face interview.

Chapter 4

Data Analysis

Chapter 4 will include descriptions of the experts interviewed in the study to summarize the respondents' answers to the questionnaire. Due to the 30 minute period these interviews were conducted over, data taken through recordings will be in the form of direct quotes or paraphrased information and responses. The answers will then be analyzed and compared to the original research questions and existing literature on healthy eating that was reviewed in Chapter 2.

Description of Experts in Related Fields

Nutritional Anthropology.

Dr. Dawn Neill is an Associate Professor at Cal Poly specializing in human behavioral ecology, nutritional anthropology, the ecology of obesity, and urban anthropology in South Asia, Fiji, and the U.S. In both her research and teaching, she likes to take a broad, interdisciplinary approach to make a more understandable teaching and learning model. Alongside Marilyn Tseng and two Cal Poly kinesiology students, Dr. Neill conducted the assessment of healthy foods on Cal Poly's campus, a study that was published by the Center of Disease Control. Most recently, Dr. Neill is teaming up with anthropology students to collect data on other aspects of the healthfulness of our food, such as how much of it is considered "real" according to national standards, how efficient our dining services are, etc. This report is expected to be completed at the end of June, 2016.

Campus Health.

Megan Coats is Cal Poly Dining Service's sole registered dietitian. She has been working as the registered dietitian and sustainability coordinator for Campus Dining for the past three

years. In addition to her work at Cal Poly, Coats also owns the Nutritional Consulting firm, Ever Vibrant in San Luis Obispo, California. Coats moved to San Luis Obispo from Washington after receiving her undergraduate degree in Nutrition from Washington State University and a masters in Nutrition and Dietetics from Kansas State University. Coats in charge of consulting the kitchens in its food choices as well as educating students on how to make healthy choices through outreach and online materials.

Nutrition.

Sofia Sanchez Porush was chosen as the student expert in nutrition, because it was imperative to have the opinion of a Cal Poly student with an issue that affects a majority of the student population, rather than the faculty and staff. Sanchez Porush is a fourth year Applied Nutrition student at Cal Poly. She has over two years of experience working as a research assistant to nutrition experts on campus and was recently accepted into the graduate program for nutrition.

Cal Poly Dining Healthy Food Options Questionnaire

Each expert was asked to respond to the following questions focused on the healthy food offerings at Cal Poly.

1. What is the national standard for healthy food and how “healthiness” is measured? How is the food at Cal Poly measured?

Question #1 was asked to establish a definition of healthy food and how it is measured. It was also a way to compare the different ways healthy food is interpreted and measured, even just across Cal Poly’s campus. Above all, the question was asked to establish the meaning of

healthfulness at the most basic level, to make it easier to understand for both the expert and reader.

- Megan Coats: “Healthy means so many things to so many people. But when I’m talking about healthy food, I go off the dietary guidelines, which is in a nutshell increasing fruits and vegetables, lean meats, lean proteins, low fat dairy, limit salt, limit sugar, sugar beverages, those are pretty much the dietary guidelines, and limit saturated fats.”
- Dawn Neill: “The standards for healthful eating are defined by the USDA. There are lots of dietary recommendations that come out of both national and international organizations that make suggestions about micro and macronutrient intake for healthful living and these are normally set on a normal distribution of what will fulfill the needs of the majority of the population.”
- Sofia Sanchez Porush: “‘Healthiness’ of foods may be measure based on their nutrient or energy density...At Cal Poly, the way we measure food is not necessarily by nutrient or energy density, as we don’t necessarily categorize them. The way Cal Poly presents information about their food is through nutrition facts and labels.”

2. What are healthy foods on college campuses? What types of specific foods have been made available at Cal Poly?

Question #2 was designed to transition into what Campus Dining offers here at Cal Poly, based on the national standards defined in the prior question. This question was meant to compare the opinions of the experts to see if all of them share a similar view of what really is offered at campus. Conflicting responses to this question could lead back to nutritional education and education about what’s even available at the different campus venues.

- Megan Coats: “Since I’ve been here I’ve increased whole grain options, lean protein options, and even fruits and vegetable options. Increasing them even offroad at 19 Metro, at Tacos-To-Go Grill, really more whole grains. Whole wheat tortillas, whole wheat bread, whole wheat buns, things like that.”
- Dawn Neill: “We do have healthy options available; they are available at most venues, but they are not the majority of what is available.”
- Sofia Sanchez Porush: “‘Healthy foods’ like ‘healthiness’ is subjective. People typically define healthy foods as it pertains to their own understanding of nutrition as well as personal beliefs. To one person, a healthy meal includes meat and potatoes, as they have grown up with that consistency and honor it as a filling and satisfying meal...The interpretation of each student, faculty, and staff member is influenced by their cultural and personal background and their access to and use of nutrition education.”

3. Are these healthy foods easily accessible and affordable? How are these healthy foods priced in comparison to less healthy options?

Question #3 Is meant to look beyond the fact that there may be healthy options and delve into whether or not these options are even affordable and accessible to students? Price and convenience of packaging, placement in the store, and other factors can all prevent students from even realizing there is a healthy option at the venue. Price is also often seen as a negative of eating healthy, so the questionnaire was evaluating how experts weighed in on this issue. Often times, weight gain and obesity are seen as an individual problem, when in reality it is a community problem. Government regulations, marketing, food placement, and other types of

subliminal messaging in society contribute to the choices consumers make and can teach unhealthy habits and beliefs.

- Megan Coats: “Absolutely. I mean, they’re right in front of students faces, you know they have to walk right past them to go to the french fries, or the chicken fingers. They’re right next to the chicken fingers sometimes, just depending on where it is. But do students choose them? Well, it’s up to them to make a decision. They’re adults.”
- Dawn Neill: “They are available. They are typically uniformly priced higher. I do know that the perception on campus...like for instance Red Radish seems to be perceived of high quality and of high health but also of high cost. Ten bucks for a salad at lunch is a lot I think for a college student.”

4. In your opinion, what deters students from choosing healthy meals over less healthy options?

Question #4 is important because it is going into more of the marketing behind food and the psychological aspects involved with making food choices every day. This question was included to again, see what the different sides of the issue had to say was at the root of the problem: students aren’t eating as much of the healthy foods as they should be.

- Megan Coats: “I think, what deters me? I go to dinner with every intention to eat healthy and I see the chicken strips, the pizza, and all these other foods and my mouth starts salivating just like every other person in the world. And my inhibitions kind of lower and I make other choices. Students are looking for

convenience. A lot of times a lot of those unhealthy options are a lot easier to carry.”

- Dawn Neill: Just because things are available, does not mean they are accessible to people and this I think, is a key factor. If you have only engineering classes and you’re stacked up and the only place you can go is to Subway, then that’s what you’re going to do. It doesn’t matter if Red Radish is around the corner and you can get a five dollar salad that’s going to be much better for you; it might not hold you through the day if you have sixteen more hours of class; it might not be easy to eat while you’re walking; it might be unaffordable; it might be all sorts of things. I think about these in an anthropological model that I’ve been applying in some research that I’m doing.
- Sofia Sanchez Porush: “In that sense, there is a tendency for students to err on the unhealthy side when they are cramming for tests late at night, in a rush in between classes, or struggling to make it to class in the morning.”

5. “How would you compare Cal Poly’s current dining services to how it was in the past?”

Question #5 was constructed to give some perspective on the progress, or lack of, that Campus Dining has made in terms of increasing healthy food options and whether its efforts have been successful or not.

- Megan Coats: “I know it’s changed, I don’t know exactly how. But I’m always pushing for the healthy options, so I know I have a good influence and I know there’s been changes just from hearing the seniors.”

- Dawn Neill: “I would say largely unchanged. A few new franchises have come on. Red Radish has come, which I think is a really good addition. But not much else seems to be vastly different. I can go to Starbucks now; I couldn’t do that when I first came. That’s not something that contributes to my healthfulness necessarily, though perhaps to my happiness. They do have big changes in the works, so I think if you ask me this after I’ve been here for ten years I will probably say a lot has changed.”
- Sofia Sanchez Porush: “Being a vegetarian and lactose-intolerant student myself, I can attest to the fact that there exists an assortment of options and choices, you just have to put in a little extra effort. While I do not eat on campus very often anymore as a graduating senior, I can honestly admit that it does and would not bother me to do so and I feel comfortable in my ability to find healthy options to meet my needs and preferences.”

6. Do you think big enough strides have been made to better the food system here at Cal Poly? Do you think a lack of healthy food is a problem on campus?

Question #6 delves into what the study is really about: whether big enough efforts have been made at Cal Poly to improve its food system and whether the lack of healthy foods is one of the main issues, or if it is in fact, not an issue at all. Again, this question was created to evaluate the different views people at Cal Poly have of campus dining.

- Megan Coats: “There’s always room for more improvement. I know all the dietitians at the UCs and CSUs, all up and down California, and things just don’t happen as quickly as we’d like. That’s just like working for any

big company, things take a long time to change... Yes, I wish things had gone faster but I know that things just move slowly. I don't have control over that. No one does."

- Dawn Neill: "I do not think that enough changes have been made. I think that UC Santa Barbara, UC Santa Cruz...these universities show us very clear ways of doing better and not just better in terms of healthful options, but better in terms of sustainable, healthy options. We know how they're doing that. I have a senior project student working on that right now. She just had a meeting with the people from UC Santa Barbara. They're very forthcoming; they're very happy to share how they've done this and how they've made it successful."
- Sofia Sanchez Porush: "I think significant strides have been made to improve the food options here on campus. Of course, there is always room for improvement. I have never been in support of having a Chik-fil-A on campus, but I cannot be ignorant to the fact that for some students or faculty, that may be the only thing they will eat on campus, based on food choice or affordability."

9. Where are the healthy foods on campus located? Do you think these are where a large number of students are likely to go?

Question #7 seeks to look once again into the strategy behind the placement of healthy and unhealthy foods. Even if, as a total, the university had healthy options, a majority could be more

convenient to some students than others, thus deterring those students from making the healthy choice.

- Megan Coats: “There are healthy options everywhere. Starbucks has great snack boxes, sandwiches that are super healthful. Obviously Red Radish. Avenue has healthy options. Tons more next year, like I said. And then Metro has a ton of healthy options. Sandwich Factory. You can make any sandwich you want, as healthy as you want. There’s whole grains, you know just regular lunch meats, tons of veggies, tons of grab-and-go. So there’s tons of options here. PCV has tons of options. Jamba Juice is really ramping up their healthy options, Tacos-to-Go is a great place for healthy options, Einstein’s has great options, and then Village Market of course. Campus Market has tons. And then Subway, that’s easy to make a healthier option. So, yeah, there’s options everywhere.” *
- Sofia Sanchez Porush: “I think the majority of ‘healthy foods’ are located campus-wide: at Campus and Village Market, the salad bars at Metro and The Avenue, Red Radish, and VG cafe. To be honest, there are healthy options at each venue, but they might not be the most obvious.”

Healthy Food and Healthy Food Communication Model Research Questions

For this study, the following five research questions were analyzed to determine what the standard for healthy food is, what factors contribute to college weight gain, and what effect communications/marketing has on consumer habits, all looking to Cal Poly’s dining services and how it compares to that of other universities.

Research Question #1: What is considered healthy food? What is the national standard?

According to the USDA Center for Nutrition Policy and Promotion (CNPP), the standard of healthy eating is to consume a healthy eating pattern that incorporates all foods and beverages within an appropriate calorie level” (“Guidelines,” 2015).

Research Question #2: What are the main causes of weight gain in college?

As the study shows, health promotion and health intervention seem to be critical in the first university year. Universities are potential key health promoters and shapers of student health. According to a study by Oregon State University (OSU) researchers, college students do not eat enough fruits and vegetables per day-in some cases, they do not eat any at all” (Ebbeck, 2011).

Research Question #3: What effect do marketing and communications efforts/strategies have on consumers’ food choices?

“Having purchased a product previously, a consumer has more than likely developed an attitude toward it...an attitude can form develop based on prior information without experience, as when consumers develop biases for or against brands based on their image (or the manufacturer’s reputation) in the marketplace. Consumers now have an expectation developed before their next product encounter” (Oliver, 2015).

Research Question #4: What is an unsuccessful model for healthy eating standards at the university level?

“A Cal Poly student research team conducted a study of campus dining in April 2015 and was guided by Cal Poly kinesiology professor Marilyn Tseng. The study found healthy options limited at Cal Poly. In fact, only 12 percent of the 314 main entrees served at the 18 campus

dining venues were classified as healthy by national standards. Out of this entree selection, only 11 of the 31 main dish salads were considered healthy” (McCarthy, 2016).

Research Question #5: What are successful healthy university dining systems?

“On the UC Santa Cruz Dining website, it states that the university ‘takes [their] commitment to being sustainable seriously. All UC Santa Cruz Dining locations have been awarded the Green Business certification by the City of Santa Cruz ‘ In February 2012, the Chancellor of Santa Cruz pledged UC Santa Cruz to purchase food that “not only truly nourishes but also acknowledges producers, consumers, communities, and the earth. UC Santa Cruz was one of the first universities to sign the initiative committing 40 percent of its food to be “real” by 2020” (“UCSC Housing,” 2015).

Data for University-level Healthy Eating Standards:

For this study, it was important to see what other experts said due to the relatively small amount of data collected on Cal Poly’s dining systems. In order to acquire more relevant data, Megan Coats, a registered dietitian, Dr. Dawn Neill, an anthropology professor, and Sofia Sanchez Porush, a fourth year applied nutrition major, were interviewed using the same questionnaire. They were each asked identical questions specifically designed to answer the original research questions in an individual interview setting. The following tables present the respondents’ answers in the form of their individual perspectives on the original research questions.

Research Question #1: What is considered healthy food? What is the national standard?

This research question was studied in response to the current literature that exists on the topic of healthy eating at the most basic level. A lot of research describes healthy eating to have many different definitions, based often on a person’s background and belief system. However,

the USDA also has a strict set of guidelines for everyday eating. “The dietary guidelines serves as the evidence-based foundation for nutrition education materials that are developed by the Federal Government for the public. For example, Federal dietary guidance publications are required by law to be consistent with the *Dietary Guidelines*” (“Guidelines,” 2015).

This question was studied to gain a better insight into how professionals and students define healthy eating, because there are so many definitions that it was important to also have literature stating a set guideline that is nationally recognized.

Table 1 summarizes the answers to this question elicited fairly consistent answers which all tied closely to the literature on the topic. All three experts agreed that the USDA, or government, defines the national standard for healthy eating. And all three agreed that healthy eating can take on different meanings at a personal level.

Table 1

National Standard for Healthy Food

Respondant	National standard for healthy food is...	Examples of healthy food
Megan Coats	“I go off the dietary guidelines”	Vegetables, lean meats, low fat dairy
Dr. Dawn Neill	The standards are based off the USDA	Micronutrients and macronutrients
Sofia Sanchez Porush	“The USDA offers a variety of standards”	Foods based on nutrient and energy density

Research Question #2: What are the main causes of weight gain in college?

This question was better addressed in the literature review than it was in the interviews with the three experts. This was because the interviews were more focused on healthy eating and the communication practices behind healthy choices on college campuses, instead of the research behind what causes weight gain. However, a few of the respondents did address the fact that healthy eating is important to prevent weight gain and that the first year of college is a crucial time in the development of eating habits and overall lifestyle. Because this was not elaborated on during interviews, there is not a corresponding table for this particular question.

This question was important to create and research through literature, because it laid the groundwork of the entire study and was the driving force behind this paper.

Research Question #3: What effect do marketing and communications efforts/strategies have on consumers' food choices?

This research question was posed because of how food is marketed toward a more general, national audience, but also because of how food is marketed toward students at Cal Poly. These same marketing strategies carry over into university dining systems, because they operate as corporations. “All food distribution businesses, from small farms, to multinational food corporations, rely on marketing to promote products and build long-term relationships with customers” (Oliver, 2015).

This question was incorporated into the study because although the literature is not about marketing at universities in particular, it still applies to the collegiate world. The study focuses on the fact that these marketing techniques carry into any type of corporate model. As consumers of the university's dining systems, it is important to be conscious of these techniques. It is also important to utilize these techniques to promote healthy eating practices.

While answers between respondents varied, there was a common agreement amongst them that better marketing techniques should be executed. Table 2 displays the responses from the three interviews.

Table 2

Food Marketing Strategies

Respondent	View on Food Marketing Strategies
Megan Coats	“How students want their information is the real question”
Dr. Dawn Neill	Better education needs to be done by Campus Dining
Sofia Sanchez Porush	Need a better education model for nutrition, especially for students who are not as in tune with healthy eating as nutrition students

Research Question #4: What is an unsuccessful model for healthy eating standards at the university level?

This question was addressed directly through the literature review with the assessment of campus food published by the Center of Disease Control. This study reported that the university did not have an adequate number of healthy entrees at the dining venues on campus. “Using this evaluative system, Cal Poly scored a 26 out of a maximum of 97. Healthy entrees were available at nine of the 18 dining establishments on campus. A healthy meal was considered to be one under 800 calories with less than 30 percent fat and less than 10 percent saturated fat. This totals to only 12 percent of food on campus to be considered ‘healthy’” (Mustang News, 2016).

This question was important to the study, because the entire project was centered around this question: does Cal Poly have a successful healthy food model? This same question has been the cause of frustration for students and a majority of the campus. Opinions range from each extreme. One side believes that Cal Poly does have a successful food system and has made great strides to improve it, while the other believes they have done nothing and lack healthy food altogether. While the respondents were not this extreme, there was a definite split in opinions between the experts. Table 3 showcases where the respondents lie on the issue of whether Cal Poly does have a successful healthy food system or not.

Table 3

Cal Poly's Dining Services

Respondent	Opinion on whether dining services provide healthy food successfully	Why they do or do not believe dining services has been successful at Cal Poly
Megan Coats	A lack of healthy foods is not a problem at Cal Poly	Believes there are healthy entrees at every dining venue at Cal Poly, including Subway and Starbucks
Dr. Dawn Neill	There is a definite lack of healthy food at Cal Poly	Big enough strides have not been made and it is backed by research
Sofia Sanchez Porush	A lot of strides have been made; there is always room for improvement	“It would be my opinion to have a venue that offers healthy choices at the same price as Chick-fil-A”

Research Question #5: What are successful healthy university dining systems?

While this question was not covered as much by the respondents in their interviews, two did mention other university dining systems and whether they thought they were successful or not. Each respondent had opposing views from one another, which is reflected in their responses to the prior questions as well. This divide in answers also seemed to represent the divide in opinions on campus regarding the healthy food options. Table 4 evaluates the responses from both Dr. Dawn Neill and Megan Coats, but Sofia Sanchez Porush has been removed from this table because she did not comment on the issue.

Table 4

Successful Healthy University Dining Systems

Respondent	View on other university dining systems
Megan Coats	CSUs and UCs are on the same plane as Cal Poly when it comes to healthy eating standards
Dr. Dawn Neill	UC Santa Barbara and UC Santa Cruz are two schools that can be used as models for how Cal Poly can improve its healthy eating standards, and this is backed by research of these universities.

Chapter 5

Discussion and Recommendations

Summary

This study was performed in response to recent debate and news coverage on Cal Poly's campus surrounding Campus Dining and whether it offers an adequate amount of healthy food at each of its dining venues. It is evident that there is a divide in opinion when evaluating the current food system at Cal Poly. Students, faculty, and staff all have different outlooks on the dining venues and the healthfulness of their entrees. Thus, it was essential to collect data from experts representing faculty, staff, and students.

To find more information on current research, strategies, and outlooks from professionals in these fields, one expert in each field was interviewed based on a single questionnaire designed to answer the following research questions for the study:

1. What is considered healthy food? What is the national standard?
2. What are the main causes of weight gain in college?
3. What effect do marketing and communications efforts/strategies have on consumers' food choices?
4. What is an unsuccessful model for healthy eating standards at the university level?
5. What are successful healthy university dining systems?

Each research question was altered slightly to create relevant questions for the interviews with each respondent. The questionnaire elicited a variety of responses that were tied to the literature on healthy eating on college campuses.

Discussion

By the data collected from Chapter 4, connections made between experts' responses provided during the interview process, and the existing literature found in Chapter 2, it is possible to make conclusions using the following original research questions.

Research question #1: What is considered healthy food? What is the national standard?

All three of the experts responded by discussing their perspectives on healthy eating and its general meaning, as well as USDA standards, and even personal standards. Dr. Neill not only talked about the USDA myplate.org standards, but new international standards, as well as anthropological models used to evaluate healthfulness. Coats also discussed dietary standards and everyday guidelines to avoid saturated fats, foods high in calories, high sodium intakes, etc. Sanchez Porush talked about the USDA standards as well and also made a note that "healthy" is a subjective term based on personal backgrounds and beliefs.

The literature reflects a similar position. The USDA has laid out a national set of guidelines for Americans to follow in order to lead a healthier lifestyle. "An overview of a daily healthy eating pattern from the U.S. guidelines includes vegetables from all sub-groups-dark green, red and orange, and starchy. Fruits eaten should be preferably whole and at least of all grains are recommended to be whole grain. Dairy consumed should be fat-free, or low-fat, milk, cheese, and yogurt. Suggested proteins include seafood, lean meats and poultry, eggs, legumes, nuts, seeds, and soy products" ("Guidelines," 2015).

Overall, one can conclude that although there is a national guideline that is recommended to be followed as best as possible, healthfulness has many components and cannot be determined by one metric.

Research Question #2: What are the main causes of weight gain in college?

As stated in the prior chapter, the experts did not explicitly talk about weight gain and its causes in college. However, the experts did repeatedly talk about the importance of developing healthy habits in college, because it is a crucial developmental period for college age students. Developing bad eating habits during the first few years of college can be detrimental and cause weight gain in both the short and long term.

The literature goes into much more depth with the specifics of weight gain in college and statistics of college-aged weight gain, but overall can be interpreted similarly to the opinions of the experts. Both the experts and the literature conveyed the need for health intervention and education. “A shift from topic focused health promotion to a more holistic approach to health promotion including fostering healthy social and built environments are suggested methods to help reduce weight gain. As the study shows, health promotion and health intervention seem to be critical in the first university year. Universities are potential key health promoters and shapers of student health.”

The takeaway from both the respondents and the reviewed literature is that one important tool for combating weight gain in new college students is health education. Investing in better nutrition programs for incoming students is vital to help students develop good eating habits early on in their college education.

Research Question #3: What effect do marketing and communications efforts/strategies have on consumers’ food choices?

The three experts had different opinions on what avenue of marketing is necessary to spread health awareness. However, all three agreed that marketing is a tool that should be better

utilized by Campus Dining to improve awareness on campus of what healthy options are offered in its venues. Dr. Dawn Neill expressed that one way marketing can improve is to make more healthy foods affordable and to advertise the pricing to students to increase consumption of these items. Coats suggested that outreach be increased, but did not know what kind of platform would best appeal to students. Sanchez Porush agreed that marketing efforts should be done to emphasize the good pricing of healthy foods at the different venues.

The literature cited in Chapter 2 helps experts and readers gain a better understanding of the strategy behind food marketing, and how it applies across various business platforms. It gives better insight into what consumers look for. These strategies are usually utilized for unhealthy foods, but more can be done to make healthy foods more aesthetically pleasing to draw in consumers. “Food companies focus a lot of marketing and advertising efforts on foods with added value. “Added value” refers to how marketable the product is to consumers, and not its nutritional content. Consumers will pay more for added textures, colors, and even unusual shapes” (Oliver, 2015).

In conclusion, marketing efforts need to be upped in the coming years to promote the new healthy offerings Campus Dining has, because otherwise consumers do not know that there has been any change. The change needs to be amplified and exaggerated through marketing efforts for anyone to notice it. This will create more interest in the healthy foods and more of an investment from students to their foods.

Research Question #4: What is an unsuccessful model for healthy eating standards at the university level?

The three interviewees also had opposing opinions when it came to Cal Poly Campus Dining's success rate in terms of the healthy foods it has to offer consumers and this question elicited very different responses from all three experts. Dr. Neill does not think Cal Poly has a successful food system and thinks lack of healthy food is a problem on campus. However, Coats disagreed. She does not believe there is a lack of healthy food on campus. Sanchez Porush believes significant strides have been made, but disagrees with some of Campus Dining's choices and thinks there is room for improvement.

A majority of the literature used in this study supports Dr. Neill's conclusions about the status of Campus Dining: that it does lack healthy food options and needs major improvements to be a satisfactory model of a healthy food system. ““The study found healthy options limited at Cal Poly,” (McCarthy, 2016). In fact, only 12 percent of the 314 main entrees served at the 18 campus dining venues were classified as healthy by national standards. Out of this entree selection, only 11 of the 31 main dish salads were considered healthy. The dining services are controlled by the Cal Poly Corporation” (Mustang News, 2016).

Based on the literature and backed by expert input, it can be determined that Cal Poly dining services needs to reevaluate its food offerings and increase healthy options at every location to sustain a healthy food model at its venues.

Research Question #5: What are successful healthy university dining systems?

The respondents also had mixed views on this question as well, because Sanchez Porush and Coats cited Cal Poly as “successful” in its efforts to have more healthy food, while Dr. Neill argued that Cal Poly is not a successful model and that the school needs to look toward universities such as UC Santa Cruz and UC Santa Barbara, which have been very successful in

implementing strong healthy food systems in their dining venues. Coats, on the other hand, stated that other CSUs and UCs were similar to Cal Poly with the food they provide through dining services. She even said that the UCs are not doing better than Cal Poly in terms of healthfulness in dining options.

The literature supports the position of Dr. Neill, because there is data proving that both UC Santa Barbara, UC Santa Cruz, and CUNY, all have strong healthy food systems successfully integrated in their dining. “UC Santa Cruz was one of the first universities to sign the initiative committing 40 percent of its food to be “real” by 2020. As of 2013, 28 percent of the food on campus was considered “real.” Zero Waste, composting, “trayless dining,” and sea-to-table efforts are also strong on the campus” (“UCSC Housing,” 2015).

Through these sources, it can be proven that Cal Poly does not yet have a successful healthy food system in place, when compared to universities such as UC Santa Cruz, UC Santa Barbara, and SUNY.

Recommendations for Practice

After completion of the study, substantial data has been collected and analyzed on the topic of healthy food at Cal Poly. Given this information, it is important to summarize the most pertinent and eye-opening results for future research, education, marketing and communication strategies, and implementation of healthy foods on campus.

Increase Nutritional Education for Students

While actually increasing healthy food is important, education goes hand-in-hand and holds equal value when bettering the food system at Cal Poly. Megan Coats is the registered dietitian on campus and holds seminars and other types of educational opportunities. However, it

is recommended that in addition to this, a nutritional class be required of students in their first year at Cal Poly. Without an understanding of proper nutrition, students cannot have the foundation to make healthy choices, even if they are available on campus. As the study shows, “health promotion and health intervention seem to be critical in the first university year. Universities are potential key health promoters and shapers of student health” (Ebbeck, 2011).

In addition to mandating a nutrition class for all incoming students, another recommendation is to increase the number of registered dietitians on-campus. Coats is the sole dietitian for the entire university, whereas most schools have multiple. This would take pressure off of Coats, and allow for more action in both education and marketing of healthy foods to Cal Poly students.

Establish a Health Belief Model for Implementation

As all of the experts stated, “healthy” is very subjective, because beyond the USDA standards, there are personal standards, and a multitude of other metric systems to evaluate what is “healthy” and what is not. It is recommended that Cal Poly establish its own health belief model to adhere to when making changes to healthy food options and venues in the upcoming years. If a model is established, such as the one UC Santa Cruz has created, it will be much easier to make and meet healthy food goals in the dining system. It is the belief of this university to have food that “not only truly nourishes but also acknowledges producers, consumers, communities, and the earth” (“UCSC Housing,” 2015). UC Santa Cruz established that it stands behind sustainability as well as health. If this is important to Cal Poly, it must be incorporated into the university’s standards for dining. It is crucial to look to other successful universities as models for Cal Poly’s Campus Dining.

Increase Marketing Efforts

Lastly, it is recommended that Cal Poly Campus Dining increase its marketing efforts through social media, promotion, and outreach to better disseminate information about its healthy food offerings and to educate students. A marketing strategy needs to be created and implemented based on how students best receive information, whether it is through fiers, emails, social media posts, or physical outreach. Most likely, all of these platforms will be utilized to cater to a campus of 20,000 people. Marketing has to have a better presence in Campus Dining that is obvious to students, faculty, and staff.

Study Conclusion

Overall, Cal Poly does not yet have a successful food system and does have a lack of healthy food in Campus Dining. This is based on research, opinions from experts, and side-by-side comparisons to comparable university dining systems. However, Cal Poly has taken strides in recent years to up the amount of healthy food it offers to Cal Poly. This also does not mean the university has reached an acceptable implementation of healthy food. Greater efforts in marketing, education, and increase of healthy food options must be taken to reach an adequate status of healthfulness in campus dining. More research is necessary to do so, as well as investing in more dietitians for the campus, and increased outreach for student input when it comes to what kind of healthy food should be offered at Cal Poly.

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Appendix A

Interview Transcripts: Megan Coats

The following interview was conducted to get expert opinions on healthy food at Cal Poly based on a questionnaire about defining healthy eating and both its affordability and accessibility on Cal Poly's campus.

Interviewer: Emma Kuchera
Respondent: Megan Coats, Registered Dietitian
Date of Interview: 5/26/2016

Interview Transcription:

Emma Kuchera: "What is the national standard for healthy food and how healthiness is measured? How is the food at Cal Poly measured in terms of its nutritional value?"

Megan Coats: "As a nutrition expert, as a dietitian, I went to school for five years. It's basically a five-year program to become a dietitian. Throughout your curriculum you learn how to read research and how to base what you say off research. A lot of "nutritionists"... anyone can call themselves a nutritionist, you could call yourself a nutritionist if you want. That's what's so sad about my field. A dietitian however, is a credential. A registered dietitian is a license that I have that I have to pay for, I have to do continued education units. So throughout my school, my curriculum, we learned how to read research and base our "healthy guideline" basically off what research has said, which is the dietary guideline for Americans. So whenever I'm talking to students about healthy food... I don't like the word healthy, but I say it when talking to students because it's the easiest thing. Healthy means so many things to so many people. But when I'm talking about healthy food, I go off the dietary guidelines, which is in a nutshell increasing fruits and vegetables, lean meats, lean proteins, low fat dairy, limit salt, limit sugar, sugar beverages, those are pretty much the dietary guidelines, and limit saturated fats. That's what I go off of. I've been taught to read the research to base it off of. Not just hearsay, not just trends and fads. The dietary guidelines are kind of the tried and true guidelines. The research guidelines dietitians use."

Emma Kuchera: "What are healthy foods on college campuses? What types of healthy foods have been made available at Cal Poly?"

Megan Coats: "Again, fruits and vegetables, lean proteins, low fat dairy, whole grains, and any beverages that aren't high in calories or high in sugar. Those are what you'll find on college campuses and that's what's considered healthy. Since I've been here I've increased whole grain

options, lean protein options, and even fruits and vegetable options. Increasing them even offroad at 19 Metro, at Tacos-To-Go Grill, really more whole grains. Whole wheat tortillas, whole wheat bread, whole wheat buns, things like that. And brown rice and quinoa; I've increased the availability just because they're easy. It's an easy switch from a white grain bread to a whole grain bread. We've definitely increased the vegetables since we've been here. Fruits, there's already a lot of fruits on campus, but we've increased the fruits at Metro for sure. They used to not really serve fruit, but now there's a half salad bar that's all fresh fruit. And like I said, we've definitely increased vegetables all over campus."

Emma Kuchera: "Are these healthy foods easily accessible and affordable to students?"

Megan Coats: "Absolutely. I mean, they're right in front of students faces, you know they have to walk right past them to go to the french fries, or the chicken fingers. They're right next to the chicken fingers sometimes, just depending on where it is. But do students choose them? Well, it's up to them to make a decision. They're adults. As a nutrition expert on campus, I'm the one who actually knows about the healthy foods on campus, not any student, not any student group. And there are lots of healthy options. We find that students aren't choosing salad bars as they used to be. Like, at Metro for instance, which is interesting. But I question if it's because Red Radish has opened. So instead of coming here to get salads, they're going over there to get salads. So we've seen a change in the last few years of what students are consuming, but we've also increased vegetables like roasted veggies, sauteed veggies, and steamed veggies, so maybe they're leaning more towards that as opposed to the raw veg? So that's interesting to me. I don't think it's good, bad, or different, I just find it interesting. I also don't always want salad, I want cooked veggies sometimes. So yeah, they're all over campus, they're in student's faces, but do they choose them? Not as much as they should, of course. But I don't believe in getting rid of the unhealthy foods. We're not here to dictate that, I don't think. We're here to provide services, we're here to provide soda if they want. But it's my job to educate students on why you shouldn't drink soda every day. Sure, have it every once in awhile, it's not going to be detrimental to your health if you have it every once in awhile. It really is about moderation and balance. I don't recommend drinking it every day, but as a treat every once in awhile, sure. As long as a student knows there's another lower calorie option; there's teas, there's coffee, there's water all over. A lot of students know that they're there. But are they choosing them? That's the question."

Emma Kuchera: "How are these healthy foods priced in comparison to the less healthy options?"

Megan Coats: "Just like in the real world, unfortunately, those things are cheaper and there's nothing we can do about that. It's food costing. We food cost just like a restaurant would, so there's a calculation we do. So it's not like we just randomly pull the number out of the sky, it

really is a calculation that's actually done for how much we buy the product for. We only have, like grocery store, a ten percent buying power. Yes, we buy a lot of food, but we don't get the prices a grocery store would, because we only have about ten percent of what they have. Our vendors don't see us as a big buyer, so we can't get those really good wholesale prices. Our pricing is what we can do. We still have to make money in order to pay our salaries of our employees and our benefits, and we have over 1,000 student employees who work for us. There's a lot of expenses with electricity, water, equipment that's breaking in old buildings all the time. So we still have to make a profit, even though we are a nonprofit. That's how our pricing is set; off of a food cost calculation. So yes, totally reasonable. Would I like it to be cheaper? Yes. But that's just not how the world works."

Emma Kuchera: "In your opinion, what deters students from choosing healthy meals over less healthy options?"

Megan Coats: "I think, what deters me? I go to dinner with every intention to eat healthy and I see the chicken strips, the pizza, and all these other foods and my mouth starts salivating just like every other person in the world. And my inhibitions kind of lower and I make other choices. Students are looking for convenience. A lot of times a lot of those unhealthy options are a lot easier to carry. A burger container is a lot easier to carry than a salad on-the-go. Students are literally running in and running out of venues. It takes a lot longer to make a salad than it does to grab a convenience food-even a candy bar, a bag of chips. Those foods are packaged the way they are for a reason from those companies. I think it's a lot of things: it's convenience, it's ease, students are stressed and exhausted and your ability to make sound decisions isn't the best. So when you're exhausted, you want comfort food. You probably don't always want a salad when you're exhausted. I don't want a salad when I'm exhausted, I want a whole pizza pie to myself. It makes complete sense why students don't always choose the healthiest options. I don't always choose the healthiest options, just because we're human and I think our emotions get in the way sometimes. There's a lot of things that get in the way. And like I said, a lot of times those healthier foods take more time to be built and I think students have every intention to go to the salad bar, but they walk right past the salad bar to Chick-fil-A because that's what they crave in the moment."

Emma Kuchera: "So how would you compare the current dining services to how it was in the past?"

Megan Coats: "Well I've only been here not even three years, so I don't really have a lot to go off of, but a lot of nutrition seniors I talk to...first word out of their mouth, "Oh my gosh, Metro has changed so much since I was a freshman. I wish it looked this great, I wish I had this many options when I was a freshman." So these are nutrition students who do know what nutritious

options are, so I take their word. So I know it's definitely increased over the past couple of years and in the years since I've been here. I know it's changed, I don't know exactly how. But I'm always pushing for the healthy options, so I know I have a good influence and I know there's been changes just from hearing the seniors. There's a veggie at every window at Metro, and if there's not, I go back in the kitchen and I start hootin' and hollerin'. We have our gluten free window. It's simple food, which a lot of students like. There's a simple salad bar. It's all pretty darn healthy. So Metro has tons of healthy options now, which apparently it didn't used to have."

Emma Kuchera: "Do you think big enough strides have been made to better the food system here at Cal Poly?"

Megan Coats: "There's always room for more improvement. I know all the dietitians at the UCs and CSUs, all up and down California, and things just don't happen as quickly as we'd like. That's just like working for any big company, things take a long time to change. There's a lot of personalities involved, there's just a lot of things involved, right? Cost is a huge issue, right? Food cost is going up, fruits and vegetables are expensive, eggs are through the roof right now, chicken breast is actually declining, but the chicken wing prices are really high. It's just weird how that's a more unhealthy piece of chicken, but it's more expensive. It just doesn't make any sense, you know? My point is: the way prices change and fluctuate on such a quick basis is just bizarre. So that has an effect on quickly we move. Would I like more healthy options? Of course. We have room for improvement, but every university has room for improvement. We could always do more. Me personally? Yes, I wish things had gone faster but I know that things just move slowly. I don't have control over that. No one does."

Emma Kuchera: "Do you think a lack of healthy food is a problem here at Cal Poly?"

Megan Coats: "No. There's definitely lots there. We can do more. Especially next year, we're opening eight new venues that are definitely a lot different. Every venue in the Avenue is changing except Chick-fil-A, because we have a contract with them and can't touch that one which is fine. But every other location in Avenue is completely changing. And two of the venues are super super fresh, healthy concepts which is really exciting. So I'm looking forward to the future because there's going to be a lot more healthy options next year, so we'll see."

Emma Kuchera: "Do you think the location of where healthy foods are offered are where a large number of students are likely to go?"

Megan Coats: "There are healthy options everywhere. Starbucks has great snack boxes, sandwiches that are super healthful. Obviously Red Radish. Avenue has healthy options. Tons more next year, like I said. And then Metro has a ton of healthy options. Sandwich Factory. You

can make any sandwich you want, as healthy as you want. There's whole grains, you know just regular lunch meats, tons of veggies, tons of grab-and-go. So there's tons of options here. PCV has tons of options. Jamba Juice is really ramping up their healthy options, Tacos-to-Go is a great place for healthy options, Einstein's has great options, and then Village Market of course. Campus Market has tons. And then Subway, that's easy to make a healthier option. So, yeah, there's options everywhere."

Emma Kuchera: "What do you think could be done to increase the consumption of healthy foods on Cal Poly's campus?"

Megan Coats: "And that's marketing education. Ellen [Curtis] is relatively new, she's only been here about a year. It's hard, because we're trying to figure out the best way of educating students, because I'm only one person. I have a lot of other jobs to do. Everyone's so tapped for time. I do a lot of presentations, I do a lot of outreach events all over campus throughout the year. But of course I'm only hitting a few hundred students at a time. Which is wonderful, but it's not the thousands of students like we have here on campus. So we're trying to figure out the easiest, the best way of reaching students. We know students are on their phones, we know we can put up fliers. I have tons of videos I can put on Facebook about health and wellness, but are students watching them? How do students want to know this information is really the question we're still trying to figure out, so we're still trying to come up with a really good strategy for that. We have fallen behind on the education, because we're trying to figure out the marketing base. It's all marketing, that's all it is. And I mean, I'm not a marketer. I can't market; I know the information; I can yell it from the rooftops, but I don't have an artistic bone in my body. That's not my forte. That's where I team up with marketing, but we're still having a hard time figuring out like I said, we put out tons of posters, we do videos, we do social media, but are the students looking at it. Some students like email, some students hate email. There's so many different ways of marketing and advertising, but with 20,000 sets of eyes, it's so hard to figure out the best way to do that. I'm not an expert in that all. I rely on [Ellen]. We haven't done enough. This year we definitely didn't do enough. And like I said, I've only been here three years, so I'm still building my program too, so we're still figuring out this whole marketing education beast. Most universities have more than one dietitian. I'm the only dietitian. I have a big responsibility, but also not all students are interested in nutrition. I think they should be; honestly, I think the student should be forced to take some kind of nutrition class. Honestly, I feel that way. It's a lifelong thing you're doing every day. I think as a society, we lack in educating our children about that, and that's a shame on the society. I mean, it's not my fault. I just do the best I can, but it's hard when it's only me."

Appendix B

Interview Transcripts: Dr. Dawn Neill

The following interview was conducted to get expert opinions from an anthropology perspective based on a questionnaire about defining healthy eating and both its affordability and accessibility on Cal Poly's campus.

Interviewer: Emma Kuchera

Respondent: Dr. Dawn Neill Date of Interview: 5/26/2016

Interview Transcription:

Emma Kuchera: "What is the national standard for healthy food and how healthiness is measured? How is the food at Cal Poly measured?"

Dawn Neill: "The standards for healthful eating are defined by the USDA. There are lots of dietary recommendations that come out of both national and international organizations that make suggestions about micro and macronutrient intake for healthful living and these are normally set on a normal distribution of what will fulfill the needs of the majority of the population. When we talk about things like how much vitamin A you should get in your diet, how much vitamin C you should get, those are all recommendations that are set by the government. And they provide recommended daily allowances, recommended daily intakes of micronutrients and macronutrients as well. So the amount of calories, carbohydrates, fat that you should get. There was just a very large change in the way we think about food labeling. They just made a change to highlight the number of calories you're consuming, and the amount of added sugar that's in a processed food product. And again, all of this is mandated by the U.S. Government. You can find a lot of information about this at the myplate.org website and that's the basic standard for healthful eating; we base nutritional programs on that. There are some other classification systems that are being explored internationally. One, we're working on a project, Marilyn Tseng and I are working on a project looking at comparing the standard myplate nutrition education for healthful eating approach with a new classification system called NOVA. It has just been popularized in Brazil, and the Brazilian dietary guidelines have adopted this NOVA classification as have some international organizations. It's a very different way of thinking about what's healthful and what's not healthful, looking at more of a level of processing and moving toward eating more foods that still look like the foods they are. Tomatoes, instead of tomato ketchup. The university classifies...they're working on a whole set of metrics, right? So, certainly Megan's job as a dietitian is to spread awareness about healthful eating and she uses those same government-based guidelines to determine what's healthful. But the campus is not

operating under that guise. They're balancing multiple currencies and Mike Thorton, the head of campus dining is actually very clear about stating things like this. He seems to, paraphrasing his own words right now, they have to consider tastes. Their perception of what constituents across campus are looking for in campus food offerings. Economics. They are technically a nonprofit, but they are a self-sustaining organization, so they're not paying out money to stakeholders, but they are driven to make money to sustain themselves. And nutrition is often not in the top set of things that they tend to talk about. The NEMS instrument looks at the venues on and near campus, whole grocery stores, convenience stores near campus, the two stores on campus, as well as the dining venues on campus. And these are supposed to be a way, a valid tool, to measure aspects that are known through research results to either increase people's ability to eat healthfully and of course the goal there is to have healthy BMIs and reduce the risk for long term health concerns or negatively impact people's ability to eat healthfully. And this is a standard of the USDA. And this isn't to say the NEMS is the only metric we should pay attention to, but it gives a valid tool that is not subjective, it's objective."

Emma Kuchera: "What are healthy foods on college campuses and what types of specific foods have been made available at Cal Poly?"

Dawn Neill: "If you're just looking at nutrient, and calorie, and fat, salt, things like that, obviously you're going to do better to seek out low fat, I don't want to say low cal, but not high cal options, salad bars, things like that. Given the data and the comparison of this data to other campuses that have been evaluated, we score similarly, right? We do have healthy options available; they are available at most venues, but they are not the majority of what is available. So if a student on this campus and presumably by given NEMS scores across similar campuses, if a student is seeking a healthful option. We're talking about calories and micro and macro-nutrients, then that is available on campus. Though most of what's available does not meet that. If we're talking about other metrics of healthfulness, like local, organic, sustainable, things that pay attention to water consumption and transport costs and carbon footprints, that's not in this data. We're working on calculating what our current situation is. We have some data from the campus from 2014 and we're calculating it now and I will have a result on that by the end of the month. So we don't know. We know it's not good. The benchmark, the sort of gold-standard right now is to have 25 percent of what they call real food on campus. I can tell you for sure that we don't have that. So, depending on what kind of metrics you're interested in, we may or may not be doing a very good job."

Emma Kuchera: "Are the healthy foods available here accessible and affordable and how are they priced in comparison to the less healthy options?"

Dawn Neill: “They are available. They are typically uniformly priced higher. I do know that the perception on campus...like for instance Red Radish seems to be perceived of high quality and of high health but also of high cost. Ten bucks for a salad at lunch is a lot I think for a college student. So the findings in the study give you some idea of how those healthy options score.”

Emma Kuchera: “In your opinion, what deters students from choosing healthy meals over less healthy options?”

Dawn Neill: “It’s not just about whether healthy options are available, that’s the first takeaway. We operate on a whole series of metrics that we make decisions on and we’re all, each of us, individually, is operating under some set of constraining factors. I can make assumptions about students and the things they’re trying to get for their money and the constraints they’re working under. Just because things are available, does not mean they are accessible to people and this I think, is a key factor. If you have only engineering classes and you’re stacked up and the only place you can go is to Subway, then that’s what you’re going to do. It doesn’t matter if Red Radish is around the corner and you can get a five dollar salad that’s going to be much better for you; it might not hold you through the day if you have sixteen more hours of class; it might not be easy to eat while you’re walking; it might be unaffordable; it might be all sorts of things. I think about these in an anthropological model that I’ve been applying in some research that I’m doing. It’s an optimal foraging model. It identifies what they call currencies. These are any of the calculations we’re trying to achieve. Any of these currencies could be money, convenience, taste, all these things, and constraints. And the combination of your set of currencies and constraints should equal how you make food decisions. The whole idea of ‘you build it, they will eat it because it’s healthy...’ research shows us that that’s silly. And it’s very naive. I think the problem comes in when people have been complaining about the food longer than I’ve been a professor here. I’ve participated in a number of focus groups on campus talking about food. We’re finally doing data on it; campus dining is finally making data available to see where we stands in terms of not just what’s available to eat, but the large picture of where that food comes from and what it means in terms of being a giant food consuming unit in California. I can’t tell you what would drive people to eat healthier foods, but I can tell you that it’s an important question that we should spend a little more time thinking about, and thinking about it with frameworks that are like this [NEMS]: they’re not subjective frameworks where we’re seeking the answer that we want, right? The campus chef just talked about a lot of changes that sound reasonable, but I don’t really know what has prompted these particular changes and I can’t speak to what the quality, taste, convenience, cost, healthfulness, etc. would be for that.”

Emma Kuchera: “How would you compare Cal Poly’s current dining services to how it has been in the past?”

Dawn Neill: “I’ve been here for eight years. I would say largely unchanged. A few new franchises have come on. Red Radish has come, which I think is a really good addition. But not much else seems to be vastly different. I can go to Starbucks now; I couldn’t do that when I first came. That’s not something that contributes to my healthfulness necessarily, though perhaps to my happiness. They do have big changes in the works, so I think if you ask me this after I’ve been here for ten years I will probably say a lot has changed. I would say there have been minor differences, but I don’t think things have changed dramatically. They’re closing Vista Grande in June to start the revamp; a three story, 3,500 square foot set of dining venues. These changes will be immediate.”

Emma Kuchera: “Do you think big enough strides have been made to better the food system here at Cal Poly?”

Dawn Neill: “I do not think that enough changes have been made. I think that UC Santa Barbara, UC Santa Cruz...these universities show us very clear ways of doing better and not just better in terms of healthful options, but better in terms of sustainable, healthy options. We know how they’re doing that. I have a senior project student working on that right now. She just had a meeting with the people from UC Santa Barbara. They’re very forthcoming; they’re very happy to share how they’ve done this and how they’ve made it successful. They’re well past the 25 percent real food challenge goals. We have really good models for this right in our backyard; we don’t really need to reinvent anything in order to dramatically improve what we’re doing. That being said, just like we all have constraints in choices with foods, Campus Dining has constraints as well. And my opinion is that they need to listen to the stakeholders on campus and it will be their job to balance all of these competing goals.”

Emma Kuchera: “Do you think a lack of healthy food is a problem on campus?”

Dawn Neill: “Yes, I do. I teach Nutritional Anthropology and my students are doing presentations sort of autoethnographical...they’ve been keeping food logs, assessments of their social environment, their physical environment, etc. and how it affects their eating choices. And so many of them talk about not having a car. And these are juniors and seniors; they don’t live on campus predominantly and many of them talk about not having a car and how that is a major constraint in their access to food, right? We’re talking about a campus that has one quarter of the population, more or less required to live on campus without a car. The masterplan now calls for two years of housing students on campus, presumably without cars. I think it is an absolute necessity, because the transition from living at home to living alone as an independent person is a very critical period in human development. It is a period where we develop new behaviors, especially dining behaviors that stick with us for the rest of our lives. They affect not only our health, but the health of future families, and other people we end up being in contact with. So

yeah, it's really really really important. The economics matters of course, if you're campus dining."

Emma Kuchera: "What do you think could be done to increase the consumptions of healthy foods on campus?"

Dawn Neill: "I think that we know that 100 percent of people are not going to opt for the healthy choices 100 percent of the time. And moderation is key, so sure, ice cream parlor pub, okay. But let's also make sure that there are more healthy options available that we're not charging more for them or deterring people in some way from buying them. We know that we're never going to be able to make the campus market a full-scale dining store, but again, we can look at patterns, talk to students to see what they actually want to make meeting their goals easier. We have a pretty health-conscious population on this campus and I think that the response that the Red Radish has received is pretty telling. There's usually a line out the door. Campus Dining employees get paid with meals as part of their salary. But they can't eat at all of the venues; they can't eat at Red Radish for instance because it's a premium dining venue. They don't really know why Red Radish isn't an option, but I'm assuming the cost of feeding them at Red Radish becomes prohibited. Someone has decided that's not a good use of subsidized funds. So we need to see change in the way we think and we need to increase those options and put them in more places so that people can do that."

Appendix C

Interview Transcripts: Sofia Sanchez Porush

The following interview was conducted to get expert opinions from a nutrition student's perspective based on a questionnaire about defining healthy eating and both its affordability and accessibility on Cal Poly's campus.

Interviewer: Emma Kuchera

Respondent: Sofia Sanchez Porush Date of Interview: 5/26/2016
Fourth Year California Polytechnic State University Nutrition Student

Interview Transcription:

Emma Kuchera: What is the national standard for healthy food and how "healthiness" is measured? How is the food at Cal Poly measured?

Sofia Sanchez Porush: "A national measure or standard of health is difficult to establish and define, especially in our country. The USDA offers a variety of standards for healthy meals, but most of those are specific to the National School Breakfast and Lunch Programs, indicating requirements for the amounts and types of foods provided to kids in public schools who may qualify. 'Healthiness' of foods may be measure based on their nutrient or energy density. Nutrient dense foods are those that offer a significant amount of nutrients per serving while energy dense nutrients offer a lot of energy (calories) per serving. "Healthiness" may be considered a balance of the two, obtaining both an appropriate amount of energy and the required nutrients in each meal throughout the day. At Cal Poly, the way we measure food is not necessarily by nutrient or energy density, as we don't necessarily categorize them. The way Cal Poly presents information about their food is through nutrition facts and labels. We now have a nutrition calculator that provides the nutritional contents of the foods provided on campus. The calculator identifies calories (energy density), amounts of macronutrients (protein, carbohydrates, fats), and several micronutrients (selected vitamins and minerals). We identify foods that are vegan-, gluten-, or soy-free, as those are among the more common food allergies."

Emma Kuchera: "What are healthy foods on college campuses? What types of specific foods have been made available at Cal Poly? Are these healthy foods easily accessible and affordable? How are these healthy foods priced in comparison to less healthy options?"

Sofia Sanchez Porush: “‘Healthy foods’ like ‘healthiness’ is subjective. People typically define healthy foods as it pertains to their own understanding of nutrition as well as personal beliefs. To one person, a healthy meal includes meat and potatoes, as they have grown up with that consistency and honor it as a filling and satisfying meal. To another person, a healthy meal includes an assortment of vegetables sauteed in olive oil, quinoa, black beans, and some fresh fruit as they are trying to maximize their intake of vitamins and minerals, protein, carbohydrates and healthy fats. The interpretation of each student, faculty, and staff member is influenced by their cultural and personal background and their access to and use of nutrition education.

At Cal Poly, my observation of the past four years is a recognition of the constant effort to improve campus dining and the foods offered at each location in order to meet the needs of all campus members. A variety of foods and food items have been offered to meet the needs of those individuals with specific and severe allergies, in addition to those who honor personal food preferences such as a vegetarian or vegan diet. Cal Poly maintains a variety of food venues in addition to two market places, where grocery items can be found. That being said, these “healthy foods” are definitely accessible. For students, faculty, and employees who have campus meals plans, campus express or fast pass accounts, the cost of those items are included. For individuals who do not maintain a meal plan or other system of meal passes, healthy food options do present themselves as being more expensive. The salad bars are a “per weight” expense, which can easily add up. Red Radish costs significantly more than Chik-fil-A, my personal belief of a more versus less healthy food option. For someone who is no longer living on campus, at times I find myself resorting to paying much more than I would like to for a healthy food choice if I am on campus all day long. While I do not always like to pay more to stay and eat on campus, I would prefer to pay more for something healthy than less for something that is not fulfilling my nutritional needs.”

Emma Kuchera: “In your opinion, what deters students from choosing healthy meals over less healthy options?”

Sofia Sanchez Porush: “As humans, and moreover as stressed, time-constrained, overworked, and still-growing students, it is typical that food choice is not the first priority when it comes to satisfying hunger. Being a nutrition major, we maintain a unique approach to our food and meals, but to the general population, when it comes time to eat, students will resort to the most convenient, the cheapest, and the fastest food choice--and if it tastes good, that’s always a perk! The most convenient and the cheapest foods are overwhelmingly less healthy than those food choices that are more expensive or take longer to prepare. In that sense, there is a tendency for students to err on the unhealthy side when they are cramming for tests late at night, in a rush in between classes, or struggling to make it to class in the morning.”

Emma Kuchera: “How would you compare Cal Poly’s current dining services to how it was in the past?”

Sofia Sanchez Porush: “When I was a Freshman on campus, I stuck to a pretty consistent diet and did not venture out much from what I found to meet my needs. I can recall a lot of students complaining about poorly tasting foods they ate from one venue or another, but I typically went to the places where I could make my own salad at the bar, or purchase pre-packaged goods that were reliable and trusted, in my opinion. In the past four years, I have observed several great changes in campus dining. Putting in Red Radish has definitely prompted a greater consumption of vegetables in the form of salads, and there is a great variety to toppings, protein choices, dressings, and greens, which allow for the reliable return. Campus Market now offers brown rice sushi and tofu bowls. Similarly, the main dining venues have put forth a great effort in providing vegetarian, vegan, and gluten free food choices for those who want and need those to meet their needs. It was typical that I would hear students (especially freshman) complain about not being able to find “good food” on campus being a vegetarian or vegan. Being a vegetarian and lactose-intolerant student myself, I can attest to the fact that there exists an assortment of options and choices, you just have to put in a little extra effort. While I do not eat on campus very often anymore as a graduating senior, I can honestly admit that it does and would not bother me to do so and I feel comfortable in my ability to find healthy options to meet my needs and preferences.”

Emma Kuchera: “Do you think big enough strides have been made to better the food system here at Cal Poly? Do you think a lack of healthy food is a problem on campus?”

Sofia Sanchez Porush: “I think significant strides have been made to improve the food options here on campus. Of course, there is always room for improvement. I have never been in support of having a Chik-fil-A on campus, but I cannot be ignorant to the fact that for some students or faculty, that may be the only thing they will eat on campus, based on food choice or affordability. In that sense, I would rather have an individual eat something than nothing. However, it would be better, in my opinion, to offer a venue that could provide much healthier food options for the same price. We know that price is such a huge contributor to the food choices made.”

Emma Kuchera: “Where are the healthy foods on campus located? Do you think these are where a large number of students are likely to go?”

Sofia Sanchez Porush: “I think the majority of ‘healthy foods’ are located campus-wide: at Campus and Village Market, the salad bars at Metro and The Avenue, Red Radish, and VG cafe. To be honest, there are healthy options at each venue, but they might not be the most obvious.

Going through the hot foods bar at Metro can provide brown rice, steamed broccoli, and a grilled chicken breast, but the fettuccine alfredo may appear much more appetizing. There is always a balance in health, but for those who maintain a complete knowledge deficit, healthy foods are blinded and overshadowed by their alternative habits. I think the majority of students may visit the locations on campus that offer healthy food choices, they might contemplate making that healthy choice, but overall I do not believe that the overwhelming majority makes those healthy choices each and every day.”

Emma Kuchera: “What do you think could be done to increase the consumption of healthy foods on campus?”

Sofia Sanchez Porush: “One of the biggest components of implementing an observable and measurable change and improvement is to address the knowledge deficit by increasing nutrition knowledge. While it may seem unnecessary, it is often the most explicit presentation of information that is most effective. Perhaps more direct signs identifying healthy choices and options offered throughout campus will promote the change we wish to see. That being said, even informed people will not make that change. It is a constant effort, one that people in the nutrition field are always working to improve. My hope is that our campus can implement these efforts and continue to address our goals of increasing health campus-wide.”