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United Wellness: Health Promotion at the University of Wyoming

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UNITED WELLNESS:
HEALTH PROMOTION AT THE UNVERISTY OF WYOMING

by
Nathan Raska

ABSTRACT

The GetFRUVED Project; a USDA approved joint research opportunity evaluating over 90 academic institutions throughout the United States, was designed to assess the health and wellness status of campus environments. Of those institutions included, the University of Wyoming was selected to serve as a Control Site, with collected data focused on the evaluation of the health facilitation resources it offers. To accomplish this, two methods of research were utilized including 1) an initial survey and 2) a subsequent audit series. Entitled the “Health, Fitness and Wellness Survey”, this initial assessment, designed by the GetFRUVED research team, was distributed across campus via email. The Health, Fitness, and Wellness Survey contained a variety of questions regarding students’ personal behaviors, as well as perceptions of the healthfulness of the University of Wyoming campus environment. Along with survey-collected data, observational audits were conducted as well. These audits targeted three primary sectors of campus health: Dining, Physical Fitness and Recreation, and Health Policy. Within Dining and Physical Fitness, various establishments located both on campus grounds as well as within a set perimeter were visited and evaluated through the use of predetermined audit forms. To evaluate the sector of Health Policy, the University’s website and complementary databases were utilized. Audits were conducted by a 7-member team composed of undergraduate community nutrition students, as well as undergraduate honors and graduate researchers. All data obtained from the survey and audits were compiled and submitted to the GetFRUVED national research team for analysis and quantification. Data collection for the GetFRUVED project reached completion at the end of 2017. Data specific to the University of Wyoming, when compared to national results, found campus recreation and several areas within both dining and wellness to be above average, with the remainder of areas assessed below average. Feedback from the GetFRUVED project will be used to enhance current health and wellness resources as well as inspire the creation of novel programs and offerings.

BACKGROUND

College campuses are rarely portrayed or imagined as temples of health and wellness; in fact the opposite could be said to be true. This is due in large part to the presumed habitual practices of the most prominent population inhabiting such locations: college students. Often painted in less than flattering hues, university attendees are portrayed not as those seeking an education, but instead as those claiming less than favorable health practices. Such opinions manage to seep into all lifestyle factors associated with college students, with those of nutrition and physical activity receiving considerable attention.

Though such prejudices may not represent universal applicability, nor do they claim a palpable candor, validity is present within each. Fruit and vegetable consumption, a familiar and well-understood integral facet of a well-balanced diet, is severely limited among students. With recommendations set at the intake of five servings collectively, only one in twenty college attendees, (5%), meet such levels.¹ This cannot be said to be due to a lack of produce within and throughout campus environments, as those students living on campus were found to consume more fruits and vegetables than those living off-campus.¹ Reason for such realities could be an issue of proximity. Students residing on campus may have greater access to products of superior nutrient density, specifically fruit and vegetables. Foods of a more convenient, visible, and proximate nature correlate with increased relative consumptions.²

Campus dining, despite purveying more nutrient dense items in a greater proximity, could still claim limitations in terms of items offered. Campus dining halls offer a broad spectrum of provisions, accommodating to all dietary patterns, practices,

and particularities, as well as items representing supremacy with regards to nutrient density, ingredient integrity, and limited adulteration. Among similar institutional facilities within the United States, nearly all claim low-fat and non-fat dairy products, whole-wheat carbohydrate varieties, vegetarian caterings, salad bars, and fresh fruit.¹ Likewise, nearly all offer a selection of healthful entrées, this loosely defined as containing sources of lean protein, while also limiting high-fat inclusions. Beyond foods offered, numerous academic dining functions promote nutritious dietary practices through the implementation of signage, product advertisement, and educational endeavors.

Despite these qualities and efforts made, student dining cannot be limited to solely those offerings provided by campus directed dining halls, nor simply to the essence of the offerings themselves. Though administering the preparation and presentation of more wholesome fare, ultimate consumption is delegated to the consumer. With the significance that this represents with regards to caloric intake, and nutrient measures, the manner in which service occurs is also a factor. Common among university dining establishments is a self-serve or all-you-can-eat model which permits repeated station visitation and unhindered portion allotment. Service constructs devised in this manner can contribute to excess caloric intake, resulting in unintended weight gain, and heightened potential for the development of related disease should the pattern continue or proliferate.³ Eating prophecies of this design represent significant consequence, especially when considering items available for selection. Items selected of greater energy density contribute to daily energy requirements far more decidedly than those foods of lesser caloric content, in this way posing a greater threat to diner well-being, weight maintenance, and eventual disease development. Intimidating enough in

hypothetic projections alone, the reality of such a possibility is a realized actuality, and cause for considerable alarm. For example, when observed and visually measured, students at the University of San José State more frequently served themselves both large portions of several energy dense foods, most notably French fries, while also selecting those salad dressings that correlated with the greatest caloric impact. In this study, “Large”, in relation to French fries, represented portions containing 18 or more fries, representing an estimated caloric equivalent of 175 calories, minimum. Among those salad dressings discovered to be most popular were Caesar and ranch, two of the higher caloric options available. When added in portions of 1 to 2 ounces, each represents an additional 100 calories, minimum, a substantial detriment to the nutrient potential claimed by the original bed of greens.³

This data is relevant due to the influence on student dietary intake, potential for caloric nimety, weight gain, and disease risk, but also of greater significance when considering the potential formation and integration of enduring eating behaviors. Dietary habits and customs developed while informative years may persevere into late adulthood, contributing to increased risk if such behaviors are of a more deleterious nature. Development and integration of potentially hazardous consumption practices should also be considered with institutional promotions for first year students to purchase meal plans and engage with campus dining.

These findings provide insight into the eating environment that exists within the dining halls that serve college campuses throughout the country. Considering these findings allows for understanding of several factors that contribute to the nutritional standing of the students that visit these establishments. However, this understanding

extends only so far, as the college cafeteria is only one of many with which university populations engage. All supplementary mediums of nutrient provision beyond those of the traditional dining hall must be considered in analyses of campus nutritional standings, in this way enabling a more comprehensive knowledge of campus dining.

Though popular, and arguably the principal source of dining opportunity on campus grounds, numerous other resources exist for the purchase and consumption of food products other than campus dining halls. These other resources may include vending machines, cafes, on-site restaurants, and university-funded convenience stores which represent substantially different eating environments than those common among dining halls. When analyzed in terms of healthfulness, campus-dining establishments beyond those of the dining hall construct scored significantly lower in nearly all categories assessed.¹ Such categories included the provision of healthy entrees, side dishes, beverages, whole grain items, vegetarian options, and barriers to healthy eating.¹ Among all of these data sets, non-dining hall venues correlated with lower scores, potentially a nutritional detriment to all those who regularly engage in business with these facilities. Such findings were found in equivalent measures at institutions throughout the country,¹ representing a valid trend among dining resources to which students have convenient access. The potential deleterious effects of convenience resources on campus are further exacerbated given their popularity. Among first year students, a majority, if not all, meals are eaten on campus, with these meals being produced and served by campus-operated operations⁴. This same theme claims validity when applied to higher-level students, with campus venues serving a significant proportion of all students, including those living in off-campus locations. Given the limited nutrient composition of the meals procured by

such establishments the gradual, yet serious, decline that could occur among those practicing regular and repeated involvement with these sites may be observed. Were students to only dine in like fashions on a basis of every other day, noteworthy impact could occur with regards to nutritional status and overall wellbeing.

Even with the consideration of this additional element, the true scope of campus dining has yet to be determined. Beyond university cafeterias and other venues claiming a more traditional service format, there are additional resources for the acquisition of food available within campus grounds. Vending machines, a unique facet of the nutrient provision spectrum of campus environments, play an influential role as well. As opposed to the constraints that conventional dining imposes (order interim, limited portability, finite hours of operation), vending machines are free of nearly all hindrances, in this way representing a dining resource of maximum convenience. Similar to those campus-dining facilities beyond the breadth of campus cafeterias, vending machines are of a lesser nutritional standing in terms of items offered. Infamous for their somewhat ubiquitous offerings, the limited level of health facilitation allowed by vending machines can be easily deduced, with such conclusions supported by both items available and customer selection and behavior. Commonly stocked with snack foods, often of the salty or sweet variety, vending machine offerings commonly contain greater concentrations of fat, sodium, and added sugars.⁵ Contributing as well to this questionable healthfulness, many of these foods are nutrient-poor, further limiting any benefit they may provide.⁵ Compounding this, when observed and measured, it was found that customers of university owned vending machines purchased items of the most minimal nutritional value a majority of the time.⁵ Of all vending machine purchases, only a fraction of those

items selected classified as claiming the greatest nutrient density, with less nutritionally sound options being purchased in majority. Despite containing items of clear superiority in terms of nutrient content, customer selection tendencies display a disregard for this fact, illustrating the underlying inclinations that drive food purchase and dining behavior.

Eating behavior and food choices stem from several key factors which motivate, inspire, and guide eating practice and pattern. When studied in terms of the driving forces behind food selection, students across numerous universities and throughout all demographics, reported nearly unanimous responses detailing the influencing factors behind their most regular food purchases and consumption behaviors. Among those ranked most influential were factors of convenience, taste, and cost.⁵ Hunger played in largely as well,⁴ as did food preference and individual budget.⁶ Less influential were factors of exterior persuasion, such as peer encouragement, discouragement, or preference, as well as media intervention, including advertisements and targeted promotions.⁶ In analyzing these factors, a fairly even distribution can be seen among those reported, with each facilitating its classification as either external or internal. Though reported in lesser quantities, external factors coalesce to form a more vast genus. When compared, the equivalency both internal and external factors claim with respect to influence, ultimate selection, and consequential consumption can be observed.

Though schedule and temporal constraints serve as common justification and reasoning for poor eating behaviors with studies of student reports supporting such rational, all cannot be defended and excused, especially given the dearth of information that is readily available to all citizens and the knowledge such a resource could be fairly expected to facilitate. Yet, despite the common logic such presumptions are based upon,

all is not so. Relevant findings have discovered consumers are unaware of the caloric content the meals offered by commercial dining.⁷ This lack of nutritional knowledge on behalf of the consumer population could be one of the more influential factors influencing sub-optimal health statuses on college campuses.

Poor eating, aside from the more apparent flaws, increases risk for several disorders, diseases, and lessened statuses of health and wellbeing. Outcomes of this variety are easily comprehended, as poor diets negatively correlated with weight status, including those of college students.^{8,9} With this negative correlation, it comes as no surprise that over a third of all college attendees are overweight or obese,¹⁰ a marker on par with national averages.

It cannot be identified precisely which eating behaviors contribute most significantly to overweight and obesity among university populations. Practices displayed at institutional dining halls could be a contributing factor. In gravitating towards products of greater nutrient density, and selecting larger portions of such items, it can easily be seen the manner in which caloric requirements could safely and rapidly be met, and consequently exceeded. Similarly, if those offerings of separate campus sanctioned dining venues are characteristic of a lesser nutrient value, this same concept of caloric inundation retains applicability, especially when considering the regularity with which students frequent such establishments. Claiming influence as well are those resources of a less traditional variety, specifically those of vending machines. With what can be justifiably declared concerning the offerings they contain, resources of this variety claim little potential for positive physiological benefit to begin with. When combined with the behaviors exhibited by college students when accessing these services, what benefit

existed originally is all but lost, serving to aid in risk for health regression and disease development. Were this not enough, the act of snacking itself, one which is directly encouraged by the nature of vending machines and their purveyed goods, has been found to significantly contribute to the occurrence of positive energy balance, with such behavior increasing likelihood of excessive energy intake, and related statuses of overweight and obesity.¹¹

Harmful not only for the additional strain exerted on the body, statuses of overweight and obesity claim far more significant correlated consequences. Similar in concept to those eating behaviors developed in youth, such as those developed during the more formative years of university attendance, late adolescence obesity serves as a predictive factor, forecasting the continuance and potential progression of this status.¹² With any status of excessive weight, be it early adolescence or otherwise, disease risk is drastically increased. Cardiovascular Disease (CVD), hypertension, and diabetes are all seen at greater rates among populations of increased weight and body mass index (BMI), a measure of relative height and weight.¹³ Potentials for elevated lipid profile levels rise as well, as do those for sleep apnea, and infertility. Not only does risk for the development of such conditions become elevated as weight increases, so does the severity of their symptoms. As with any disease status, physiological functions are hampered, inhibiting the body from fully and effectively defending itself from harm, and restoring itself should this occur. In this way, the cyclic fashion in which bodily degradation occurs through the onset of excessive weight gain can be observed, highlighting the importance of eating practices and the implications of the realities of college student eating practices.

INTRODUCTION

Upon analyzing the originally presented portrayal of college students, and the associated lifestyle choices, a certain validity becomes apparent. However accurate this portrayal may be, responsibility for health statuses are often placed upon the students themselves, as opposed to the environment. Though food choices, and other health behaviors, are ultimately personal decisions, the influence of environment cannot be overlooked. Factors at both the community and institutional level help shape the behaviors of college students, and could potentially claim significant accountability with regards to their health and wellbeing.

Assessing the healthfulness of these environments was the purpose of the GetFRUVED Project; a USDA approved joint research opportunity evaluating over 90 academic institutions throughout the United States. Selected to serve as a Control Site for this project, the University of Wyoming joined the elite ranks of those other campuses chosen, with the data collected from each pooling in an effort to quantify the student environment in terms of health promotion and facilitation.

The research team on the University of Wyoming campus sought to evaluate the extent of health provision offered by this institution, through its provision of dining, fitness, and health policy resources. Beyond the University itself, the impact of the surrounding community, specifically focusing on proximal dining establishments and local gymnasiums was also evaluated. Ultimate findings will illuminate the current status of the University of Wyoming with regards to environmental healthfulness, providing reason of commendation, and highlighting those areas deserving of future endeavors and progress focused actions.

METHODS

The GetFRUVED team for the University of Wyoming was composed of 10 members; full time faculty, two graduate students, and six undergraduate students. Both full time members served as project leads, responsible for recruiting individual team leaders, delegating assignments, organizing and conducting meetings, compiling paperwork, evaluating participation, communicating with central intelligence, and submitting final data. Both graduate students, as well as one undergraduate student, were assigned the role of individual team leader. Responsibilities under this title included leading site audits, organization of team meetings, data collection, and data entry. All remaining undergraduate student team members served as data collection support, providing supplementary aid in site audits and general study functions.

Data collection was conducted through two primary mediums; an initial survey and a subsequent series of audits. Entitled the “Health, Fitness and Wellness Survey”, this initial assessment, designed by the central GetFRUVED team, was distributed across campus via email. Containing a variety of questions regarding student perceptions of personal behaviors, as well as perceptions of the healthfulness of the University of Wyoming campus, the purpose of this initial survey was to collect data directly from the students themselves, as opposed to strictly those data gathered from observation. Entry for the chance to win a gift certificate was included to encourage participation, and all completed questionnaires were forwarded to the central GetFRUVED research team for evaluation.

Along with the survey, additional data was collected through a series of site audits, with each audit grouped into one of three subseries. These audits focused on three

primary sectors of campus health: Dining, Physical Fitness and Recreation, and Health Policy, with each given a corresponding acronym. Dining was titled FRESH (Full Restaurant Evaluation Supporting a Healthy Dining Environment), Physical Fitness and Recreation titled PACES (Physical Activity Campus Environmental Supports), and Health Policy titled POINTS (Healthy Environment Policies, Opportunities, Initiatives, Notable Topics Survey). Individual teams within the greater GetFRUVED team were assigned to singular audit sectors, conducting site visits within their respective classification, and entering all data collected. Prior to the audit conduction, each team member, including project leaders, were required to complete an online training series. Each sector included a unique training series and all those involved with the given sector were required for completion.

Within Dining and Physical Fitness, various establishments located both on campus grounds as well as within a set perimeter were visited and evaluated through the use of predetermined audit forms. To evaluate the sector of Health Policy, the University's website and complementary databases were utilized.

Audit questionnaires were constructed and provided by GetFRUVED central intelligence and were made available through their website. Each sector of health investigation claimed a unique audit questionnaire. A majority of the questions requested quantifiable information regarding the presence or absence of various items (such as bike racks, walking paths, salad bar, substance abuse policy, etc.) provided by the resource in question. Rating scales were used to determine the degree to which specific concepts were achieved or left unfulfilled by the particular establishment. A comment section was included at the end of each audit to allow for researcher input concerning any topic

unaddressed by the audit questionnaire. Audits were filled out and submitted online, though the option to print the audits was made available so that questionnaires could be filled out by hand and entered upon completion of on-site visits. A majority of the audits at UW were completed by hand. Difference in questionnaire completion and entry method did not influence data validity or the applicability of final results.

Audit sites were selected through the use of established GetFRUVED criteria. The total audit environment included all establishments within a 1.5-mile radius of the center of campus. Within the designations of the FRESH and PACES Audits, relevant establishments were grouped into smaller subcategories, given their alignment with provided characteristics. Within each subcategory, a minimum percentage of available sites (30% for FRESH facilities, and 25% for those within PACES) was required for study inclusion.

FRESH audits encompassed dining establishment that fell within four subcategories: Fast Food/Café/Food Truck, Sit-Down Restaurant, Dining Hall/Cafeteria/Buffer, and Delivery. Establishment classifications were not mutually exclusive, as several audit sites aligned with more than one designation, and were audited for each classification with which they corresponded, each audit producing separate data sets. In addition to being defined in terms of dining construct, establishments were also labeled as being either on or off campus, with this taxonomy providing reference upon site cataloging through the use of provided enumeration sheets. Those establishments included within the Dining audits were also selected according to both their proximity and popularity among students. Each establishment was evaluated using the same audit

form, with questions and ratings focused on menu offerings, nutritious options, and the overall promotion of healthful behavior the establishment facilitated.

In total, 16 sites were selected and audited. Of the 16, two sites required dual designation, producing a total of 18 data sets. Within the chosen establishments and concurrent data series, 8 were classified as Fast Food/Café/Food Truck, 5 Sit-Down Restaurant, 2 Dining Hall/Cafeteria/Buffer, and 2 Delivery. Of the sites selected, 5 were located on campus grounds, one of which was the University Dining Hall. Other on campus establishments were classified as either Fast Food or Café style environments. Chosen sites represented a wide range of offerings, with various cuisines and specialties. Included were Mexican, Asian, and Mediterranean specialties, as was an establishment serving an entirely vegetarian menu. Other facilities offered more traditional fare (hamburgers, sandwiches, French fries, etc.), rounding out the profile of the entire FRESH audit site population.

The questionnaires used for all FRESH audits addressed environmental information concerning menu offerings and variety, as well as visual factors that may influence customer dining selection and experience. Questions regarding menu inclusions were satisfied in terms of quantifiable presence ratings (e.g. Number of non-fried vegetable side.) Other questions were more subjective, requiring researcher judgment of statement applicability (e.g. signs encouraging unhealthy eating.) Overall questionnaire goals targeted healthfulness and nutrition.

As with the selection of FRESH audit sites, PACES audit sites were chosen given their proximity to campus and popularity with students. Three facilities were selected from those that fell within study boundaries. Selected sites were classified into one of

three mutually exclusive categories, as opposed to those utilized within the FRESH audits. Facility categories were Primary Recreation Facility, Secondary/Satellite Facility, and Single Facility Component, the latter of which was not employed within any of the three sites chosen for audit. As with the FRESH audit sites, PACES establishments were further categorized as on or off of campus grounds. Of the three sites selected, two were located on campus and operated by the University of Wyoming. One was the main recreation facility available to students and the entire campus population, classifying it as a Primary Recreation Facility, and the second a smaller gymnasium catering mostly to the student athlete population, classifying it as a Secondary/Satellite Facility. The final site selected was located off campus, but in sufficient proximity so as to claim popularity among the student body. This facility was classified as a Primary Recreation Facility. Audits of all sites were conducted through the use of a singular questionnaire template, which claimed a general focus pertaining to facility offerings, amenities, and overall inclusiveness.

Whereas audits for both FRESH and PACES required physical site visitations, the final sector included for evaluation, POINTS, was evaluated in a research-based format through the use of the University of Wyoming webpage. Through the exploration and analysis of this primary resource, and additional supplementary data sources, a review of all University sanctioned programs, policies, organizations, interventions, and resources relating to the promotion of campus health and wellbeing was conducted and compiled. Topics of interest within this sector included chronic disease, smoking cessation, alcohol education, sustainable transportation, and nutrition, among others.

Formatting of the POINTS audit questionnaire differed substantially from those for FRESH and PACES, in that it was entirely absent of conjecture on behalf of those conducting the research. Instead, direct evidence and references were required for any stipulation made and entered. Webpages and links were provided for all University policies cited, with such verification addressing specifically requested sectors of information.

After each audit was conducted, all information was entered into the GetFRUVED database for data analysis and interpretation. Data sets will be filed as singular entities to be used for future campus-specific evaluations, while also being assimilated with all other information gathered from cooperating institutions to serve as a nationally representative database schematic.

RESULTS

Overall, there were areas in which the University of Wyoming excelled when compared to national averages, while other sectors were ultimately found to be lacking, relatively speaking. Study results were grouped in the same three divisions of audit focus, these being PACES, FRESH, and POINTS, with each being broken into inclusive subdivisions, the likes of which were analyzed to and quantified in terms of resource extensiveness. Such analyses were translated into scores, which were then used as comparative markers to those other institutions that took part in the study.

Within PACES (Table 1), the University of Wyoming scored higher in all included subdivisions when compared to nationally averaged scores. This feat was not repeated in either FRESH (Table 2) nor POINTS (Table 3), with the University of Wyoming only surpassing national averages in one of the four subdivisions within

FRESH (Restaurants), and two of the six subdivisions within POINTS (Nutrition Living and Comprehensiveness of policy support). Within POINTs, UW received a score of 0 in two subdivisions of analysis, these being Chronic Disease and Active Environment.

Overall PACES Recreation Facilities and Campus Programs Results	Your Score	N	Min	Max	Mean	SD
Supports: Qualifications/accessibility of staff and equal access status	7.3	122	2	9	6.4	2.0
Equipment: Quality of the recreation and strength equipment	15.7	122	2	22	12.4	5.5
Walk/bike: Supports for biking and using stairwells	8.0	122	1	15	7.0	3.8
Facility Total: Equipment+ Supports + Walk/Bike	34.0	122	5	42	25.8	9.1
Campus: Quality and extensiveness of health and fitness programs	54	55	27	63	45.0	9.5

Table 1. PACES Scores

Overall FRESH Food and Support Results	Your Score	N	Min	Max	Mean	SD
Fast food/Sit down Food	16.7	384	7	52	20.3	7.1
Restaurants Support	19.4	384	8	35	19.1	4.9
Dining hall or cafeteria Food	30.5	117	6	59	35.9	11.3
Support	20.0	117	11	36	23.9	5.9

Table 2. FRESH Scores

Overall POINTS Policy Results for FRUVED schools	Your Score	Min	Max	Mean	SD
Stimulant- % of support to limit drugs/alcohol	50	0	100	84.0	28
Chronic Disease % of support for chronic disease prevention	0	0	40	7.0	10
Active Environment % of supports to encourage physical activity	0	0	80	14.9	18
Nutrition Living % of supports to encourage healthy eating	34	12.5	53	26.3	9.3
Student Average Score- Average of all subscores	21	3.13	60	33.3	11
Comprehensiveness of policy support – monitoring, enforcement	21	0	52	19.0	12

Table 3. POINTS Scores

DISCUSSION

Through the completion of the GetFRUVED study, observations and data collected suggest that the health status of this campus, and its population, is superior than that often concluded for college environments. This is not to say that improvements cannot be made, in fact the research project has served to highlight those areas impacting health behaviors that require further attention, and those that have gone entirely overlooked.

Campus dining, though in large part designed to facilitate convenience, does foster healthful dietary practices. It could be argued that greater attention is paid to mass appeal rather than nutrient density, but positive choices can be made, and easily so. Not only this, but specific consideration is made so as to accommodate all dietary practices. Such statements claim less applicability when discussing those dining establishments that surround the University, but if sought out and desired, optimal nutrition can be achieved. Despite these observations, the data show a lacking quality within this campus sector when compared to similar nationwide establishments, both on and off campus. Advancing those dining facilities on institution grounds, as these are the only within University control, would serve to further the nutritional environment of the University of Wyoming as it relates to health.

The recreational facilities present at the University of Wyoming are in a true class of their own. With opportunities for nearly every physical activity accounted for, little, if anything, need be done within this sector of campus living. The same holds true for nearby facilities offering active opportunities, making physical fitness one of the more valuable environmental resources available to the population of the University of

Wyoming. Data relevant to this sector of campus health reflect exactly this, with the University of Wyoming outscoring national averages in all subdivisions analyzed.

With regards to health promoting policy, much exists, but much remains unaccounted for as well. Substantial work has been undertaken, producing not only policy, but programs, organizations, and numerous educational opportunities, all relating to the facilitation of student health in one manner or another. What was identified was that a majority of these offerings were geared towards prevention as opposed to treatment or maintenance. Though noble in design, this narrow mission disregards those who claim current diagnoses, and are seeking information and counsel on disease management and lifestyle adaptation. Also highlighted by the GetFRUVED analyses was a glaring lack of resources concerning the topics of Chronic Disease and Active Environments. With both of these sectors receiving scores of 0, it is clear that attention need be dedicated to each. Were any policy subdivision to be deemed most worthy of praise, it would be that of Nutrition Living, with this being one of only two to receive scores above national averages. Within the general field of campus policy, it can be said that those programs that have been installed are undoubtedly deserving of recognition, but much remains to be developed within this sector of campus health promotion.

The GetFRUVED study activities at the University of Wyoming did not provide an all-encompassing evaluation of the health environment that is present at this institution, nor can the data collected said to be entirely accurate. Given that only a fraction of those establishments available to students, and thus contributing to their nutritional and physical health, were audited and submitted for analysis, this study can only claim to have produced a general depiction concerning the healthfulness of the

environment in question. Similarly, given the nature of the audit questionnaires used in the evaluation of those establishments selected, the applicability of the data collected can only extend so far. As a fair amount of those questions included by GetFRUVED central intelligence were of a subjective nature, auditor opinion and interjection played a substantial role in the fulfillment of audit queries, however, auditor training attempted to address this. In addition to this, given the variability of team responsibilities, there exists a potential for data incongruence, as not all parties involved participated in each audit. In this way, perspectives and team characteristics differed between audits, representing an inconsistency in company personality.

Despite these points of mention, a clear need for action is apparent and undeniable, both at the University of Wyoming, and at educational institutions throughout the country. Given the research that has been done assessing the health standings of such locations and the populations they house and serve, there is a glaring absence, one deserving of immediate attention. What exactly is absent, however, is less clear. There are numerous commentaries seeking to justify or explain the current statuses of health within university populaces. According to the students themselves, the primary complication is one of a temporal nature. Given the time constraints of their rigorous schedules, minimal opportunity exists for the active preparation of food, nor for the consistent acquisition of healthful fare. Others, less nuclear to the dilemma in question, suggest that it is instead a matter of priority. Whether it be a matter of temporal infeasibility, an apathetic negligence, or a third causational variable that has yet to be proposed, an attempt, any attempt, need be made in order to realize or progress towards remediation of current concerning health statuses.

In determining appropriate action, insight can be gleaned from previous successes. With regards to student eating behaviors, positive strides have been made at several institutions through the implementation of strategic intervention, program creation, and community outreach.^{3,15} Though each approach may not be feasible or suitable for all locations and environments, each may provide inspiration or a template for others.

As discussed, portion preference can and does play a significant role in the contribution that singular meals and individual food products claim when considering daily energy requirements and caloric intake, the latter of which can easily reach quantities of excess. Additionally, malpractices within this concept can become behaviorally integrated, persisting into later adulthood, and furthering consequential impact. Such practices are permitted, if not even slightly encouraged, through the self-service construct that many university dining venues employ. Though personal selection is a deserved right, advantageous suggestion can be exercised to promote more healthful behaviors. Through the implementation of Point of Selection Nutrition Information (POSNI), with laminated signs depicting differing portion sizes and their caloric equivalents, the dining hall at San José University noticed a significant decline in those students selecting larger portion sizes of several more nutrient dense offerings.³ Additionally, in a survey conducted after the implementation of this signage, student recognition of these installments was measured in nearly all of those responding, illustrating a general awareness among the entire dining hall customer population.³ Though not all those who reported recognition altered their behavior, a simple increase in

cognizance of the connection between consumption and nutritional consequence is a victory in and of itself.

Actions of this variety are becoming increasingly popular among dining establishments, with many facilities making nutritional information available to customers in an online format. Such resources are often interactive, allowing customers to personalize their order, and gain further and more accurate insight into the nutritional content of their meal. Other facilities have taken this a step further, providing on site information, in this way removing the barrier that web-based resources may represent, yet few endeavors of a similar accord have extended to the sector of campus dining. Several Universities have employed online databases of facility offerings, detailing allergens, ingredients, and even caloric content, including the University of Wyoming. Though commendable, such resources often go overlooked and underutilized, given the additional effort required on behalf of individuals engaging with this medium. Additionally, access of such resources requires an initial awareness of asset existence, and desire to engage. Without one, or arguably both, little influence can be had. Were similar information to be more accessible, visible to all those visiting the relevant venue, true impact could be made, as illustrated by the interventions of San José University.

Another answer to the nutritional predicament facing college populations could be one of greater involvement. In exposing students to the intricacies of the food they consume, and allowing them active participation, an interest and conscientiousness could be fostered. Slow Food University of Wisconsin (SFUW), a movement that began in 2007, provided institution attendees with the opportunity for authentic input in the production of the food they consumed. The mission of SFUW was one of sustainability,

locality, and charity. In joining SFUW, students received not only an education in what such concepts represented, but also the ability to become involved with their practice. What began with a dozen curious students preparing monthly meals from locally purchased and personally grown goods, over the course of 8 years, grew to become a volunteer organization claiming over 2,000 members, and serving over 10,000 meals annually.¹⁴ The success of SFUW provides hope to those institutions looking to facilitate student awareness concerning food production. By involving students in this capacity of their educational experience, an enthusiasm, or at the very least a passive interest, in food and nutrition can be facilitated.

In matters of nutrition, especially those related to college students, complete attention cannot be devoted to overconsumption. While overconsumption may claim primary influence in the nutritional standings of university attendees, under nutrition, specifically that caused by eating disorders and disordered eating, is also a significant issue of concern among college-age youth. Eating disorders, as defined as “persistent disturbed eating behaviors that result in altered consumption or absorption of food and physical or psychological dysfunction”,¹⁵ are growing in prominence, reaching values upwards of 20% within campus environment.¹⁵ Of greater concern is lack of awareness and attention to undernutrition. Of those suffering from disordered eating behaviors, a significant portion do not seek treatment, and therefore escape diagnosis and aid.¹⁵ Of equal concern is the difficulty with which disordered eating can be predicted or identified. Eating disorders effect college populations evenly. Adding to the complications that these situations presents, eating disorders are difficult to treat, as their origins vary. For these reasons, great caution must be taken with identifying eating

disorders and implementing nutrition intervention efforts, as such endeavors could have a conflicting impact.

With this in mind, it would seem as though the best course of action be not one of advertisements for restriction or elimination, but instead of moderation and healthful practices. By promoting consciousness and positivity, in lieu of stringent dietary constraints and judgmental stipulations, wholesome eating practices can be encouraged, fostering both nutritional and psychological wellbeing.

Within the issue of college dining environments, college student eating practices, and the health implications both represent, many intricacies exist, each deserving of equal attention. Given the complexity of this issue, exceptional attention must be paid to any and all efforts, yet with the gravity the situation represents, little time can be afforded for idle inaction. Change must occur, and soon, but only if such change has first been attentively planned and expertly employed.

CONCLUSION

Though easily measured, quantified, and translated, data concerning the dining practices common to college students fails to fully illuminate the situation at hand. Further reasoning and rationale must exist in order to explain those decisions made by this population, and repeatedly so, by college consumers with regards to their health-related practices. Given the implications that such actions, or lack thereof, claim, it seems unfitting to declare this a matter of naivety or indifference. Whether it be a singular factor, or instead a culminating dynamic of multiple influencing sources, work remains to be done to elicit explanation and design and implement effective strategies to combat the lesser health standing found on universities and promote health-related practices.

Findings from this study will be available to campus officials, as well as supervisors within the sectors of project evaluation. With this information, those responsible for the positive work already done will be recognized and future change will be inspired. With recent interest in practices of sustainability, healthful fair, and overall diet conscientiousness, study results will provide the necessary foundation for related endeavors at the University of Wyoming.

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