



# Campus Wide Healthy Eating Initiative

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## INTRODUCTION

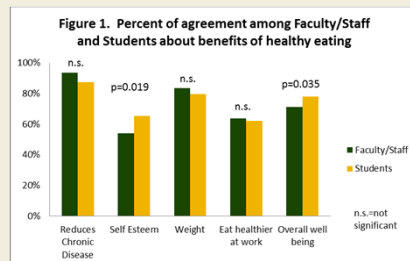
Individuals who consume healthy diets, such as those rich in fruits and vegetables, are less likely to suffer from heart disease, diabetes, stroke, some cancers, and other chronic diseases (MMWR, 2010; He et al., 2007). Several studies indicate that the majority of college students eat less than the recommended levels of fruits and vegetables needed to obtain the benefits of healthy eating (Boynton Health Service, 2010; Deshpande et al., 2009). College and universities are excellent settings to encourage healthy eating through educational programming and delivery of healthier foods and dining options. Such settings could also encourage healthy eating among faculty and staff, yet most healthy eating studies focus only on students. To address this limitation, a survey was conducted to compare the healthy eating behaviors and perceptions of students, faculty, and staff from a small Midwestern college. The aims of this study were to examine similarities and differences among groups to inform the development of policy and environmental changes that target the needs and circumstances of all campus members.

## METHODS

A cross-sectional study design was implemented to collect demographic, behavioral, and perception data of campus members. Survey questions were developed based on review of healthy eating survey instruments and input from campus staff and students. Following pre-testing and question modifications, the final version of the survey was disseminated electronically to students, faculty, and staff by campus email. In addition to follow-up email reminders, posters and flyers were distributed throughout campus to encourage participation. Data were analyzed using descriptive and chi-squared analyses. Due to low expected counts, faculty and staff responses were combined.

## RESULTS

Of the 441 valid surveys, 67% were from students, 22% from staff, and 11% from faculty for an overall response rate of 20%. A majority of both faculty/staff and students indicated strong agreement about the benefits of healthy eating (Figure 1).



A significantly higher percentage of students agreed that healthy eating promotes self esteem (p=0.019) and overall well being (p=0.035).

Although both faculty/staff and students appear to understand the benefits of healthy eating, a higher proportion of faculty/staff appear to be eating healthy foods compared to students (Table 1). Higher percentages of faculty/staff consume fruit and other vegetables 2 or more times a day compared to students. In addition, a greater percentage of students indicated that they did not consume several healthy foods including chicken, fish, or eggs (13%), green salad (18%), nuts and legumes (30%) and low fat dairy (19%).

Table 1. Percent of daily or weekly consumption of healthy foods by Faculty/Staff and Students

Foods	Faculty/Staff			Students			P-Value*
	1-7/week	2+ a Day	Do Not Consume	1-7/ week	2+ a day	Do Not Consume	
Chicken, Fish, Eggs	84%	14%	1%	81%	6%	13%	0.000
Green Salad	89%	7%	5%	70%	13%	18%	0.000
Nuts Legumes	83%	5%	12%	58%	12%	30%	0.000
Low Fat Dairy	53%	39%	9%	53%	27%	19%	0.005
Fruit	60%	39%	2%	68%	25%	7%	0.008
Other Veg	60%	38%	1%	68%	27%	5%	0.011
Whole Grains	74%	22%	4%	70%	22%	7%	n.s.

\* = Significant differences between Faculty/Staff and Students calculated using chi-square tests

Table 2. Percent of daily or weekly consumption of high fat or sugar foods or foods of low nutritional value by Faculty/Staff and Students

Foods consumed	Faculty/Staff			Students			P-Value*
	1-7/ week	2+ a day	Do not consume	1-7/ week	2+ a day	Do not consume	
Desserts	76%	3%	20%	81%	9%	10%	0.000
Diet Soda	28%	15%	57%	26%	4%	69%	0.000
Fries/Hash	47%	0%	53%	63%	3%	34%	0.000
Regular Soda	27%	1%	72%	38%	6%	56%	0.006
Candy	57%	4%	38%	67%	7%	26%	0.025
Whole Fat Dairy	46%	2%	53%	40%	9%	51%	n.s.
Fried Snacks	64%	0%	36%	67%	3%	30%	n.s.
White Bread Pasta	67%	14%	19%	70%	21%	9%	n.s.

\* = Significant differences between Faculty/Staff and Students calculated using chi-square tests

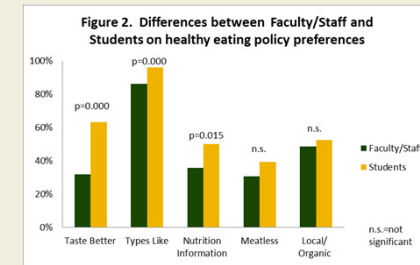
Compared to students, a higher proportion of faculty/staff do not consume several unhealthy foods (Table 2). For example, a higher percent of faculty choose to refrain from eating desserts (20%), fries/hash browns (53%), regular soda (72%), and candy (38%). A greater percentage of students consumed fries/hash browns (63%) and candy (67%) at least 1 day per week compared to faculty.

Table 3. Differences in faculty/staff and student responses to barriers to healthy eating.

Barriers to healthy eating	Faculty/ Staff			Students			P-Value*
	Agree	Disagree	Neither	Agree	Disagree	Neither	
I do not have access to healthy foods	20%	66%	14%	39%	46%	15%	*0.000
Healthy foods are of poor quality	5%	77%	18%	19%	57%	24%	*0.000
Healthy food is too costly	46%	29%	25%	66%	19%	15%	*0.001
Healthy food is bad tasting	13%	78%	9%	19%	66%	15%	0.031
I am too tired to prepare healthy foods	55%	32%	12%	42%	40%	18%	0.035
I do not have time to eat healthy foods	46%	39%	15%	41%	36%	24%	n.s.
I do not have support	12%	72%	16%	13%	64%	24%	n.s.
I do not have time to eat healthy foods	12%	72%	15%	18%	65%	17%	n.s.
I am too stressed to eat healthy foods	57%	30%	13%	55%	29%	16%	n.s.
Healthy eating is not important	4%	90%	6%	5%	89%	7%	n.s.
I am not committed	41%	43%	16%	41%	41%	18%	n.s.

\* = Significant differences between Faculty/Staff and Students calculated using chi-square tests

A significantly higher percentage of students agreed that lack of access, poor quality, cost, and bad taste were key barriers to their ability to eat healthy foods (Table 3). A greater percentage of faculty/staff indicated that they were too tired to prepare healthy foods, compared to students. Barriers such as stress and lack of support, commitment, or time did not differ significantly among students and faculty/staff.



When asked about policies to promote healthy eating responses of students and faculty/staff differed significantly across several strategies (Figure 2). A greater percentage of students indicated that they would consume an increased amount of healthy foods if they were provided nutritional information, and were served food that tasted better and that they liked.

## CONCLUSIONS

Although both groups agreed that healthy eating is associated with positive benefits, fewer students consumed healthy foods, such as fruits and vegetables. In addition students consumed more unhealthy foods such as fries and candy when compared with faculty/staff. Responses about the barriers to healthy eating differed significantly between faculty/staff and students. Lack of access to better tasting and less costly healthy foods were barriers for students. For faculty/staff, access was not as important as feeling too tired to prepare healthy foods. A significantly higher number of students supported policies that would increase access to nutrition information and to preferred healthy foods that are better tasting. Other strategies may be needed to address faculty concerns about fatigue such as providing time-saving or advanced preparation tips for healthy foods. Results from this study highlight the differences among campus groups and the need to develop policy strategies that address these differences.

## ACKNOWLEDGEMENTS

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