

WHAT'S FOR LUNCH AT CUNY?



How City University of New York can improve food choices on its campuses and reduce obesity and diabetes.

Campaign Against Diabetes
City University of New York

What's for Lunch at CUNY?

Stacy, a psychology student at Queens College, is hungry and running late for class. Having spent the afternoon caring for her two year old daughter while trying to study for an exam, she had little time to eat. As she enters the cafeteria, she has to decide -- wait in line and pay more than she can afford for a salad and sandwich or pick up the greasy ready-to-go fries and pizza on the counter in front of her.

In the Bronx, Yolanda, a secretary at Hostos Community College, has just been diagnosed with pre-diabetes. She is trying hard to find food that will help her to lose weight to avoid developing diabetes. The fresh fruit is bruised and unappealing, there are no vegetables and almost no whole grain products. The foods that Yolanda's dietitian encouraged her to eat are simply unavailable.

John, a pre-med CUNY student and a vegetarian, tries to eat well. Before his 9:00 am class he would like to buy a small fruit salad, a yogurt, and cereal which will cost \$8.00. Considering his financial situation, he opts for the \$2.00 bagel with butter and jelly.

Like so many New Yorkers, CUNY students, faculty and staff live, work and learn in a food environment where the unhealthy choice is often the easiest choice. It's time for a change.

CUNY Campaign Against Diabetes

Founded in 2006, the CUNY Campaign Against Diabetes (CAD) seeks to strengthen CUNY's capacity to reverse the epidemics of obesity and diabetes that threaten New York City's well-being. Our long-term goals are to reduce the number of CUNY students, faculty, staff, and their family members with uncontrolled diabetes; prevent the onset of diabetes and obesity among members of the CUNY community and their families; and leave the university and New York City better equipped to control and prevent diabetes. In order to realize CUNY's potential to play a role in the prevention of diabetes and obesity and the management of diabetes, CAD has taken action on several fronts, including workshops for CUNY students and staff with diabetes, campaigns to improve food and physical activity opportunities on CUNY campuses, a peer education program and several policy conferences and reports. The Campaign is funded by the CUNY Chancellor's Office and the New York State Health Foundation.

In this report, we describe food services on CUNY campuses, highlight successful efforts to improve food at CUNY and identify ways that students, faculty, staff and administrators can work together to create an environment at CUNY where healthy food choices are easy choices.





January 2009 Diabetes Action Team with NYC Councilman Joel Rivera

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SUMMARY

With more than 240,000 degree students, another 220,000 continuing education students and nearly 37,000 faculty and staff on 23 campuses throughout the five boroughs, CUNY touches the lives of many New Yorkers – not only students, faculty and staff but also their families, neighbors and co-workers. As a leading New York City institution, CUNY has the opportunity, responsibility and resources to set a new standard for providing our students, faculty, and employees with healthy food choices in an environment that supports health.

By finding new ways to make affordable, tasty and healthy food more available on its campuses, CUNY can help hundreds of thousands of New Yorkers to make healthier food choices, lose excess weight and contribute to reversing the epidemics of obesity and diabetes that threaten the City's future. In addition, CUNY can set an example for other universities, public agencies, employers and communities interested in taking action to improve health.

In investigating food choices on 18 CUNY campuses, the Campaign Against Diabetes found several obstacles to purchasing healthier food. Healthier food items cost 52% more on average than unhealthy products. Healthy foods were difficult to locate or appeared unappealing, whereas less healthy choices like French fries and soda were more prominently displayed and more plentiful. Cafeterias required more time to prepare and serve healthy than unhealthy options. Students and staff reported that they often did not have the time or patience to wait for preparation so opted instead for the quicker unhealthy choice. Vending machines, often a source

of food for those in need of a quick, convenient snack, contribute to the lack of available healthy food options on CUNY campuses. In a survey of 45 vending machines on 15 campuses, we found that 81% of the products sold were high in calories, fat or sugar.

In a survey of 1,600 students on three CUNY campuses in Spring 2008, CAD found that 14% of respondents were obese and 23% overweight, putting them at high risk of health problems like diabetes and heart disease. This highlights the importance of improving food choices on CUNY campuses.

When asked about campus food, 84% of students supported requiring CUNY cafeterias to post calorie labels, as chain restaurants are required to do in New York City. Almost two-thirds of surveyed students reported that they rarely or never ate at the cafeteria on their campus. This constitutes an important untapped market for campus food services. The main reasons students said they did not use the campus cafeteria were food was too expensive (22%), they preferred to bring their own food (15%), the food did not taste good (11%) or they thought the food was unhealthy (11%). Almost 30% said that they thought healthy food was unavailable on their campus.

To improve the food environment at CUNY, to make it easier for individual students, faculty and staff to obtain and afford healthier food will require CUNY and campus administrators, faculty and staff and students to make some changes. "What's for Lunch at CUNY" offers recommendations for initiating health-promoting change at the university, campus and individual levels.

Recommendations for CUNY, each of its colleges and everyone who studies or works at the University.

The City University of New York Should:

- Mandate that CUNY food vendors meet the *New York City Agency Food Standards* for healthier food for all food sold and meals served on campus and campus vending machines.

- Subsidize “Quick & Healthy” daily lunch specials so that every student can find at least a few healthy and affordable foods every day.

- Eliminate “pouring rights” contracts at CUNY that allow one beverage company to have a monopoly on that campus in exchange for a payment to the college.

- Require CUNY cafeterias to post menu boards that list the calorie and fat content of the products they sell.

- Consider making selection of a food service vendor a CUNY-wide rather than a campus decision in order to increase the University’s market influence for healthier more affordable cafeteria food.

Each Campus Should:

- Require all vending machine snacks to contain less than 200 calories and all beverages (other than low fat milk) to contain no more than 25 calories per 8 ounces.

- Decrease the cost of healthy vending selections through contracts or subsidies.

- Designate spaces for Green Carts, city-licensed food carts that sell fresh fruits and vegetables, on or near all campuses.



- Provide a place to eat on campus that is comfortable, pleasant and clean.

- Require food service vendors to offer healthy food options in cafeterias at an affordable price.

- Involve students and employees in menu planning.

- Provide and maintain water coolers and microwave ovens in the cafeteria on each campus.

- Require nutrition education in all freshman seminar classes.

Students, Faculty and Staff Should:

- Eat less and move more, good advice for all Americans.

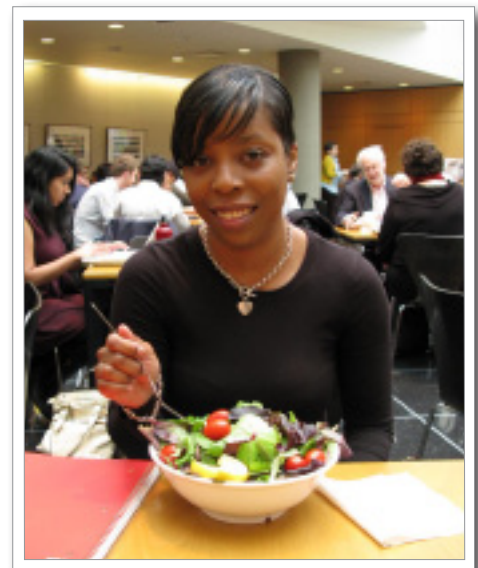
- Don't drink your calories: choose water instead of sweetened beverages.

- Enjoy plenty of fruits and vegetables each day.

- At the campus cafeteria, visit the salad bar, create healthier sandwiches or consider having soup. If these foods aren't available, ask why.

- Become a food activist: ask your campus administrators to negotiate contracts with food vendors that make healthier more affordable options available on your campus, get rid of pouring rights contracts with soda companies and make healthier choices available in vending machines.

- Join the CUNY Campaign Against Diabetes. We need your ideas, energy and commitment!



The Big Apple is Getting Bigger and Bigger!



New York City is in the midst of an obesity epidemic. More than half of adult New Yorkers are overweight (34%) or obese (22%), as are nearly half of all elementary school children (43%).¹ These surging obesity rates have spawned a parallel epidemic of type 2 diabetes. Researchers have calculated that each two pound increase in body weight increases the risk for developing diabetes by 4.5%.² As a result the prevalence of type 2 diabetes has more than doubled in the past decade. More than a half million

adult New Yorkers have diagnosed diabetes and an additional 200,000 have the disease and don't know it. Uncontrolled diabetes is the leading cause of blindness, heart disease, end-stage renal disease, and nontraumatic lower-extremity amputations.³ In addition to diabetes, hypertension, cardiovascular disease, stroke, gall bladder disease, respiratory dysfunction, gout, osteoarthritis, and some cancers are other devastating chronic diseases linked to obesity.⁴ As a result, for the first time in two centuries, the current generation of children in America may have shorter life expectancies than their parents.⁵

How Did This Happen?

In the simplest terms, we are taking in more calories than we are expending. New Yorkers are eating more and moving less than ever before. However, the reasons are far more complicated and need to be examined from many levels, including biological, social and economic. While the choice of what to eat and how much to eat is ultimately up to the individual, environmental influences are now widely recognized as critical contributors to these decisions.

Tempting fatty, high calorie foods beckon us to overeat wherever we turn. Food consumption is dictated by cravings, emotions, social situations and environmental conditions that lead many of us to make choices that can undermine health. The characteristics of neighborhoods, workplaces and schools all contribute to individual food choices.^{6,7,8,9,10} These characteristics include income level, the built environment, access to healthy food and exposure to marketing. It is well known that the closer New Yorkers live to fast food restaurants and unhealthy food stores, the more likely they are to be overweight.¹¹ Supersized and super calorie restaurant foods are fattening us up. In New York City, almost everyone lives near a fast food restaurant. A recent survey of 13,000 New Yorkers revealed that all of the respondents lived within a half-mile of an unhealthy food outlet, with an average density of 50 outlets per square mile, while only 82% lived within a half-mile of a healthy food outlet, with an average density of only six healthy outlets per square mile.¹² Many studies show that poor people, blacks and Latinos live in neighborhoods with even fewer healthy food choices contributing to their higher rates of obesity and diabetes.^{13,14}

The Yearly Toll of Diabetes in New York City

Hospitalizations: 20,000

Amputations from diabetes: 3,000

New cases of kidney failure: 1,400

Diabetes-related deaths: 4,700

Hospitalization costs alone: \$480 million

Total cost: ~\$6.5 billion

NYC DOH&MH, 2007

The pervasive and aggressive marketing of low cost, fatty, high calorie food also has a big influence on food decisions. Overeating has become the norm and the obstacles that individuals face when trying to eat well are often overwhelming. To reverse the obesity and diabetes epidemics, not only individuals but also government, employers and food businesses will need to change their practices to support rather than hinder individuals' efforts to

eat well. Increasingly, public health officials and researchers recognize that the road out of obesity will be policy changes that create healthier food and physical activity environments that make it easy for people to "choose health".¹⁶ So what does all this mean for the City University of New York, the nation's largest public urban university?

Let's Start At CUNY!

With more than 240,000 degree students, another 220,000 continuing education students and nearly 37,000 faculty and staff on 23 campuses throughout the five boroughs, CUNY touches the lives of many New Yorkers – not only students, faculty and staff but also their families, neighbors and co-workers.

As a leading New York City institution, CUNY has the opportunity, the responsibility and the resources to set a new standard for providing our students, faculty and employees with an environment that supports optimal health.

By finding new ways to make affordable, tasty and healthy food more available on campuses, we can help many New Yorkers who spend numerous hours a day on campus to make healthier food choices, lose excess weight and therefore contribute to reversing the epidemics of obesity and diabetes that threaten the City's future. In addition, CUNY can set an example for other universities, employers and communities by taking action to improve health.

This report describes the current food environment within CUNY. It also presents data on student food choices and attitudes based on a 2008 survey of 1,600 CUNY students at three CUNY campuses (Hostos Community College, Hunter College and Medgar Evers College). Finally, it suggests changes in policies and practices that will promote better food choices at CUNY. In subsequent reports, we will describe opportunities for increased physical activity on CUNY campuses.

Ultimately, our goal is to make it easier for the tens of thousands of New Yorkers who are educated, work or teach at CUNY to eat well, be fit and stay healthy.

Who's Cooking at CUNY?



Each CUNY campus chooses a vendor to operate its cafeterias, kiosks, catering services and vending machines. Generally, a single company is granted exclusive rights to provide these varied services to the entire campus, although several schools have entered into separate agreements for food provision, snack food vending and/or beverage vending. Food services at some campuses such as Medgar Evers College are self-operated by the campus.

In reviewing bids from various food vendors, campus administrators must balance convenience, sales volume, affordability, nutrition and the preferences and dietary needs of diverse student, faculty and staff populations. Administrators must also consider the financial viability of bidders, their past success in performing similar services for other institutions and opportunities for student employment by the food service provider. The

“The daily hot food, you don’t even know what you are looking at sometimes.”
Lehman Student : corporations winning contracts with CUNY campuses get a percentage of the gross sales from retail food sales, vending sales and catering sales, or a guaranteed annual payment, regardless of the amount of sales, whichever is greater. Since these contracts also provide revenues for colleges, administrators consider the expected returns to the college.

Additionally, many CUNY campuses are party to an agreement with either Pepsi-Cola or Coca-Cola. In these agreements, the beverage companies pay for the right to exclusive access to CUNY faculty and students. These “pouring rights” contracts take precedence over any other terms in the contracts with vendors. For example, New York City Technical College (NYCT) has a pouring right contract with Coca Cola and a food services contract with Compass Group USA that requires Compass to serve only Coke at NYCT. Tables 1 and 2 lists contractors currently providing food services on CUNY campuses.

As New York and CUNY enter a financial slow down, it might be tempting for college administrators to consider generating more revenues by making it easier for vendors to increase sales of unhealthy but profitable foods. Such a choice would be penny wise and pound foolish, risking the future health of CUNY students, faculty and staff.



TABLE 1: CUNY FOODSERVICE VENDORS, FALL 2009

Vendor	Contact Info	Operation	Campus
Metropolitan Food Service	www.metropolitanfoodservice.com 5550 Merrick Road Massapequa, NY 11758 516 797-7066	A Long Island based regional company serving several local campuses.	Brooklyn City Queensborough
CulinArt	www.culinartinc.com/ 175 Sunnyside Blvd. Plainview, NY 11803 516 473-2700	A large national company that serves food at 160 institutions in the Northeast and in California.	Bronx York
Panda House	2001 Oriental Blvd. Brooklyn, NY 11235 718 368-3686	A small independently owned company.	Kingsborough
MBJ Food Services	445 W 59th St. New York, NY 10019 212 582-1629	A privately owned New York City restaurant and catering business which has been in operation for over 30 years.	Borough of Manhattan Hostos John Jay LaGuardia
Restaurant Associates	www.restaurantassociates.com/ 330 Fifth Avenue New York, NY 10001 212 613-5500	A New York City-based company with 150 locations nationwide.	Graduate Center
AVI Food Systems	www.avifoodsystems.com/ 2590 Elm Road N.E. Warren, Ohio 44483 330 372-6000	The largest independently owned and operated food service company in the US.	Baruch Hunter*
Compass Group USA (Chartwells)	www.cgnad.com/ 2400 Yorkmont Road Charlotte, NC 28217	A UK-based \$9 billion organization with associates throughout the US, Mexico and Canada.	New York City Tech
Nayyarsons Corporation	3366 Hillside Avenue Suite 11 New Hyde Park, NY 11040-2730 516 741-9265	A Long Island food service establishment for more than 25 years with 12 government accounts.	Lehman*
Self-Operates			Medgar Evers College of Staten Island

*Hunter was operated by Sodexo, *Queens was operated by Metropolitan and *Lehman was operated by Panda House at the time of the survey in the spring of 2009.

TABLE 2: CUNY SNACK AND BEVERAGE VENDING CONTRACTS

CC Vending	Coca-Cola Enterprises
John Jay Lehman Medgar Evers Queensborough	New York City Technical College College of Staten Island

CHANGING VENDORS TO IMPROVE FOOD CHOICES: HUNTER COLLEGE

In Fall 2009, a campus administration committed to healthier food and student advocacy combined to lead Hunter College to award a new food service contract to AVI Food Systems. In the previous two years, several student groups had complained about food choices in the campus cafeteria and urged the administration to change vendors. The goal was to provide a range of healthier food choices in the student cafeteria and faculty dining room. Conan Freud, Hunter's Associate Vice President for Finance & Administration, described AVI Food Systems, the new vendor, as "a family-owned and operated company (that) is committed to providing healthy food choices in an environmentally friendly and ecologically sustainable way."

In its contract with Hunter, the company promised to work with the College to create a rooftop garden to grow herbs and vegetables for its menus; introduce a tray-less food service program to limit waste; and to provide drinking fountains with paper cups made from recycled materials. Hunter also changed its vending machines to offer not just standard products, but alternatives that are lower in fat, salt, sugar and calories. Unfortunately, the new vendor initially cut benefits for its employees, a move that was later reversed. This illustrates the complexity of balancing cost, nutritional and social justice concerns in selecting a food vendor.

This story is an example of the active role a college can take to make healthier food available and the important role of students in convincing college administrators to make a change.

What's Cooking at CUNY?



What kinds of foods are being served and offered in cafeterias and vending machines at CUNY? To find out just what is cooking at CUNY, we visited cafeterias and vending machines across 18 CUNY campuses and rated their lunch time food options and their vending machine selections. Using The 2005 *Dietary Guidelines for Americans*,⁴ raters judged items sold in the cafeteria as "healthy" or "unhealthy". While this rating system oversimplifies the range of characteristics of any single food, by assigning foods into these categories it allowed surveyors to rate facilities in a more systematic way. Healthier foods include fresh fruits and vegetables, whole grain products and low fat dairy products. Unhealthy options were high in sugar, fat, salt or calories. Table

3 list examples of healthy and unhealthy options found at CUNY. Raters also compared the prices of more and less healthy options on each campus. See Appendices A and B for detailed descriptions of our methods and limitations.

TABLE 3: EXAMPLES OF HEALTHY AND UNHEALTHY CHOICES FOUND AT CUNY CAFETERIAS

Healthy Choice	Unhealthy Choice
Grilled Chicken	Tuna Salad
Sushi	Gyro
Roasted Vegetables	Onion Rings
Vegetarian Lentil Soup	Cream of Broccoli Soup
Whole Wheat Roll	Corn Muffin

Key Findings from Food Service and Vending Machine Survey

- 74% of hot food items served were rated as being unhealthy
- 53% of cold food items served were rated as being unhealthy
- 36% of the cafeterias did not have a salad bar*
- 81% of vending machine selections were low in fiber and high in fat or calories
- Foods rated as healthy cost 52% more than those rated as unhealthy

*Salad bars offer customers more choice, but we acknowledge that packaged salads, which are less expensive for food vendors, can also increase the availability of fresh vegetables.

Our findings show that the majority of the meals currently offered at all CUNY cafeterias are composed of high fat, low fiber, energy-dense foods, typical of the poor diet consumed by most Americans (see Table 4). Fresh and appealing fruits and vegetable were scarce, none of the 18 schools provided free, easily accessible tap water and healthy choices from vending machines were very rare. Table 5 lists the grade that each cafeteria received based on the ten selected criteria at the bottom of the table.

Our survey identified three significant obstacles to purchasing healthier food:

- It was discovered that healthy food items we selected cost 52% more on average than the unhealthy food items sold at CUNY.
- The healthy food was not easy to locate or looked unappealing. Raters reported that it was common to see the less healthy choices first because they were more prominently displayed and more plentiful.
- Surveyors discovered that cafeterias required more time to serve healthy than unhealthy food. CUNY students and staff reported that they often did not have the time or patience to wait for preparation and instead opted for the quicker unhealthy choice over the healthy meal.



What Should CUNY Be Serving?

In the last several years, scientists and government agencies issued several reports recommending changes in the American diet to improve health and reduce obesity and diabetes. The Department of Health and Human Services (HHS) and the U.S. Department of Agriculture (USDA) released the latest version of the *Dietary Guidelines for American* in 2005⁴ These guidelines are based on the most recent scientific evidence and were created in an effort to provide advice to promote health and reduce risk for major chronic diseases through diet and physical activity. In general, the guidelines recommend that Americans eat more fresh fruits and vegetables, more whole grain and low fat dairy products, less processed food and less food high in calories, fat, sugar and salt.

In a second report “*The Surgeon General’s Call to Action to Prevent and Decrease Overweight and Obesity*”, HHS⁵, describes a detailed action plan to combat the increasing prevalence of overweight and obesity¹⁷. Schools are identified as a key setting for public health strategies to combat this problem. The report advises that public health approaches in schools should extend beyond health and physical education to include school policy. Although the report’s strategies are aimed primarily towards pre-university institutions, there are several recommendations that could make an impact at the college level. These include adopting policies ensuring that all foods and beverages available on school campuses and at school events contribute toward eating patterns that are consistent with the *Dietary Guidelines* and that healthy snacks and foods are provided in vending machines, school stores and other venues within the school’s control.

TABLE 4: SUMMARY OF CAFETERIA SURVEY FINDINGS ON FOOD AND COST, SPRING/FALL 2008

School	% healthy hot food items	% healthy cold food items	% healthy salad bar items	average price unhealthy item	average price healthy item
Baruch	31%	86%	59%	\$1.92	\$2.26
BMCC	24%	35%	76%	\$1.74	\$3.33
Bronx Community	17%	17%	0%	\$2.30	\$3.43
Brooklyn	32%	50%	74%	\$2.10	\$2.65
City	25%	52%	85%	\$1.68	\$2.61
Graduate Center	47%	61%	73%	\$2.93	\$4.03
Hostos	38%	50%*	75%	\$2.00	\$3.25
Hunter	49%	55%	0%	\$2.55	\$4.03
Hunter, Brookdale	no hot food	20%	0%	\$2.41	\$3.73
John Jay	23%	42%	86%	\$1.76	\$2.40
Kingsborough	43%	58%	73%	\$2.35	\$3.26
Laguardia	10%	55%	0%	\$1.80	\$3.36
Lehman	20%	30%	0%	\$2.38	\$3.18
Medgar Evers	16%	42%	0%	\$2.25	\$3.17
Queens	23%	80%	82%	\$1.82	\$2.84
Queensborough	13%	44%	89%	\$1.85	\$2.94
Staten Island	14%	65%	0%	\$2.52	\$3.94
York	22%	50%	91%	\$1.96	\$3.67
Average	26%	47%	48%	\$2.13	\$3.23

*only 4 cold items available at time of visit

TABLE 5: CAFETERIA GRADES BASED ON 10 CRITERIA*, SPRING 2009

School	Grade
Brooklyn	90
Baruch	80
Graduate Center	80
City	70
Hunter	70
Hostos	70
York	70
John Jay	70
BMCC	60
Kingsborough	60
LaGuardia	60
Staten Island	60
Queensborough	60
Queens	60
Lehman	50
Medgar Evers	40
Hunter (Brookdale)	40
Bronx Community	30

*10 items each worth 10 points: (1) % healthy hot food above university average, (2) % healthy cold food above the university average, (3) % healthy salad bar items above university average, (4) free and easily accessible water, (5) cleanliness rated average, good or excellent, (6) fat free/low fat dressing, (7) fresh fruit, (8) skim or 1% milk, (9) 2 or more vegetables available (other than salad bar and French fries), (10) healthy food priced below campus average.

What Do Students Think?

To find out about CUNY students' food choices and their opinions about campus food, the CUNY Campaign Against Diabetes surveyed 1,600 students at three CUNY campuses. Hostos Community College, Medgar Evers College and Hunter College were selected for their geographic, ethnic/racial and academic diversity. Since what people think about their food choices influences what they choose to eat, we hoped that a better understanding of students' attitudes and behaviors might help to develop programs and policies to improve food choices.

The survey produced some disturbing findings. First, using the self-reports of height and weight, 14% of our students were defined as obese and 23% were overweight. Body Mass Index (BMI) is a measure of body fat based on height and weight that is used to assess an individual's status. A BMI of 30 or more suggests obesity, a BMI of 25 to 29.9 indicates a person is overweight and a BMI of 18.5 to 24.9 is considered healthy. People with higher BMIs are at increased risk of diabetes, heart disease and other health problems. Thus, about 37% of CUNY students have BMIs that put them at some elevated health risk.



Second, very few CUNY students reported eating the kinds of food or getting the exercise recommended to maintain health. Only 18% reported eating either fruits or vegetables at least once a day and just 16% said they exercised for four or more hours a week.

Third, 63% of students reported that they rarely or never ate at the cafeteria on their campus. The main reasons students said they did not use the campus cafeteria was that food was too expensive (22%), they preferred to bring their own food (15%), the food did not taste good (11%) or they thought the food was unhealthy (11%). Almost 30% said that they thought healthy food was unavailable on their campus.



These findings suggest that improvements in the quality, variety and price of campus foods could lead to improvements in the diets of CUNY students and increased revenues for food service vendors.

We also asked students their opinions about campus policies and programs related to health. Eighty-five percent of students thought that CUNY should post the calorie content of food served in its cafeterias, as chain restaurants in New York are required to do. Students were more divided on the question of whether CUNY should ban the sale of unhealthy foods on campus, as many public school systems are doing. A third of the students agreed, 43% disagreed and 23% were undecided. Many students showed support for a variety of campus-based programs: 58% thought the campus should offer weight loss/weight management workshops, 44% said they would participate in a group exercise program, 42% would attend weight management workshop and 30% said they would participate in chronic disease management workshops. These survey results provide evidence that many CUNY students would welcome assistance in making healthier food choices.

“Sodexo makes absolutely no effort to provide us with nutrition information, I have to guess and that’s a problem with my blood pressure.”
Hunter Faculty

What do Faculty & Staff Think?

The CUNY Campaign also conducted focus groups with faculty and staff at the three campuses. Echoing responses made by students, faculty and staff reported that it is difficult to find healthy food on or off campus and that healthy food is more expensive than unhealthy food. They suggested adding salad bars to campus cafeterias, improving food choices in campus vending machines and better maintaining CUNY’s drinking water fountains so alternatives to soda were more readily available. These preliminary findings suggest that ***CUNY’s faculty and staff support healthier and more affordable food on campus.***

What Can Be Done?

To create a food environment that makes healthy choices easy choices, the CUNY administration, campuses, student organizations and individual students, faculty and staff will need to take action. We believe that CUNY has the potential –and the responsibility– to set a standard for a healthy university that provides its students, faculty and staff with nutritious and affordable food. To do so, we suggest specific steps the University, campuses and individuals can take.

What The City University of New York as a Whole Can Do:

Mandate that CUNY vendors meet the City Agency Food Standards for all food sold and meals served on campus.

In September 2008, Mayor Bloomberg signed Executive Order 122 requiring most City agencies and contractors who serve food in New York City to adhere to the City Agency Food Standards¹⁸, shown in Table 6. The goal of these standards is to improve the health of all New Yorkers served by City agencies. The guidelines are part of the City’s effort to reduce obesity in school children, the most frequent consumers of City food, and to reduce obesity and high blood pressure in adults and seniors who regularly consume publicly-purchased food.

Because CUNY is a quasi-public agency run by the City and State, it is not required by law to follow these standards. However, since the intent of the guidelines is to improve the food environment in public facilities, the CUNY Board of Trustees could extend the health protection these standards offer to the hundreds of thousands of New Yorkers who study and work at CUNY, thus making an important contribution to the City’s effort to reduce obesity and diabetes.

TABLE 6: SELECTED CITY AGENCY FOOD STANDARDS ¹⁸

Nutrient/Food	Standard
Sodium	480 mg or less per individual item
Dairy	Low fat or fat free
Beverages	Lower calorie (<25 calories per 8 oz serving)
Juices	100% fruit juice
Meal standards	2 servings of fruits and vegetables per meal
Fat	No trans fat items or deep fried items
Breads, pastas, grains	Whole grain or 2g or more of fiber per serving
Cereals	3g or more of fiber per serving



Subsidize a “Quick and Healthy” daily special.

A common finding throughout all CUNY cafeterias was that students and employees had to wait for healthy options to be prepared whereas the fries, burgers and pizza were more readily available. In a survey of 2,000 working Americans, convenience was the most important consideration when making a lunch food choice at work.¹⁹ As one CUNY employee remarked, “When I’m at work, I am busy working. I don’t have the time to wait for my chicken to be grilled so I grab the fries and head back to my desk.” To address this problem the CUNY administration could require food vendors in each cafeteria to offer at least one daily special that is readily available, tasty, healthy and no more expensive than less healthy options. To encourage vendors to make this option a priority and to keep its price affordable, CUNY could use food service vendor revenues to subsidize the healthy choice.

TABLE 7: SAMPLE COST COMPARISON OF HEALTHY AND UNHEALTHY ITEMS AT TWO COMMUNITY COLLEGES

Unhealthy Items	Amount	Cost	Healthy Items	Amount	Cost
hamburger	1	2.00	veggie burger	1	2.75
chicken nuggets	1 serving	2.50	grilled chicken sandwich	1	3.75
grilled cheese	1	1.95	turkey wrap	1	4.75
French fries	1 medium	1.75	side salad	1 serving	4.95
potato chips	1 bag	.81	banana	1	.60
Average Price/Item: \$1.80 unhealthy			Average Price/Item: \$3.36 healthy		

Unhealthy Items	Amount	Cost	Healthy Items	Amount	Cost
pizza	1 slice	2.00	turkey sandwich	1	4.00
hamburger	1	2.00	grilled chicken sandwich	1	4.00
fried chicken	3 pieces	4.85	salad w/grilled chicken	1 serving	5.85
French fries	1 medium	1.65	small salad	1 serving	2.55
potato chips	1 bag	.98	apple	1	.76
Average Price/Item: \$2.30 unhealthy			Average Price/Item: \$3.43 healthy		



Require CUNY cafeterias to post menu boards that list fat and calorie contents of items.



In March 2008, New York City passed legislation which requires chain restaurants with at least 15 outlets to list calories on their menu.²⁰ The Department of Health argued, “calorie information provided at the time of food selection would enable New Yorkers to make more informed, healthier choices”.²¹ It has been shown that placement of calorie information at point of purchase is more effective than the traditional methods of providing calorie information and may be associated with lower calorie purchases among consumers reporting seeing information. A New York City study discovered that fast food customers who saw calorie information displayed purchased 52 fewer calories than those who did not see the information.²²

The importance of providing calorie information is supported by the fact that Americans are consuming more meals away from home and these meals are becoming higher and higher in calories.^{23, 24, 25, 26} In 2005, Americans spent almost half (48%) of their food dollars on foods prepared outside the home, in comparison to 26% in 1970.²⁷

In our student survey, an overwhelming majority of students (85%) reported that they would like their cafeteria to list the fat and calorie content of its menu. While some cafeterias may have difficulty posting the calorie content of all foods they sell, every vendor could provide information on at least some foods. The CUNY Board of Trustees should encourage calorie labeling in all CUNY cafeterias and support a technical assistance unit staffed by CUNY food and nutrition faculty and students to assist vendors to post accurate calorie and fat content.

“Sometimes I feel like I need to make an appointment with a nutritionist just to know what to eat.”
Medgar Evers Employee

Eliminate “pouring rights” contracts at CUNY.



According to CAD’s student survey, almost half of CUNY students drink more than 25 ounces of soda weekly. When we eat solid food our appetite is suppressed but when we drink calories from sweetened beverages our appetite isn’t satisfied so we consume more. Sweetened beverages are the single biggest source of calories in the American diet. The average 18 year old male, drinks 35 ounces daily, or 2,900 calories of sweetened beverages each week, making regular soda-drinking one of the nation’s top causes of obesity.²⁸ A Harvard study showed the chance of becoming obese increases 60% with each can of soda one drinks per day.²²

For these reasons, CAD recommends ending all pouring rights contracts at CUNY and removing soda from campus vending machines. Individuals have the right to consume what they want but a university has an obligation to set policies that protect its students' and employees' health and reduce rather than increase public health problems.

Consider making selection of a food service vendor a CUNY-wide rather than a campus decision in order to increase the University's market influence for healthier more affordable cafeteria food.

Currently, each CUNY campus selects its own food services vendor. While this practice allows campuses to tailor the contract to their specific needs—and to bargain for a higher return of revenues—it reduces CUNY's bargaining power by splitting up its substantial market of students and staff. As shown in Table 1, CUNY currently has contracts with seven food service companies, two vending machine businesses, while two campuses operate their own food services. By negotiating a single contract for all its campuses, CUNY could demand better terms—healthier food, lower costs and a revenue stream dedicated to improved nutrition and lower prices. The CUNY Campaign Against Diabetes urges the Board of Trustees to examine this option and to report its findings to the University community.

What Each Campus Can Do:



Require that all campus vending machines snacks contain fewer than 200 calories and that all beverages (other than low fat milk) contain no more than 25 calories per 8 ounces.

The problem with vending machines is it's just too easy to get a high fat or sugary snack or beverage. It's hard not to feel the urge to eat when you walk by a vending machine stocked with these types of food. Studies show that in schools the presence of more vending machines increases the frequency of student snack food purchases.³⁰ It doesn't require running out of the building to the corner store or waiting in line, and choices are generally inexpensive. As vending machines items are generally less costly than cafeteria items, they are a feasible method for implementing nutrition interventions.³¹

***"Look at their vending machines, it's horrible! It's like you are in junior high."
Hostos Faculty***

The bottom-line question is: Will students and staff choose the healthier snack foods and beverages if provided? There is evidence to suggest that they will.³²

For example, when Philadelphia schools instituted a no-soda policy in July 2004, sales at vending machines did not decrease.³³ In fact, in 2005 when Miami-Dade County Public Schools restocked its high school vending machines with healthier snacks, 1% low-fat milk, water and 100% juice, revenue from the beverage and snack machines increased.²⁷ Under current CUNY policy, each campus negotiates its own vending contract so campus business offices are positioned to add the provisions suggested here to their contracts.

Decrease the cost of healthy vending selections.

An alternative to banning all junk food from vending machines is to decrease the cost of healthy options.

TABLE 8: PERCENT OF VARIOUS ITEMS IN A SURVEY OF 45 VENDING MACHINES ON 15 CUNY CAMPUSES, SPRING 2009

Candy	35.7%
Chips – regular	25.2%
Cookies/snack cakes/pastries	13.0%
Chips – low-fat or pretzels	6.8%
Granola/cereal bars	3.9%
Nuts/trail mix	3.3%
Gum	3.2%
Crackers/Chex Mix	3.1%
Crackers with cheese or peanut butter	2.9%
Low-fat cookies and baked goods	1.3%
Popcorn	1.0%
100 calorie pack crackers	0.6%
Bagel chips	0.1%

Research has shown that small price reductions can be an effective means to encourage consumers to select healthy snacks.^{34,35,36} One study found that when prices were reduced in vending machines at worksites and secondary schools, the percentage of lower-fat snack sales increased. Overall, snack sales volume also significantly increased in the 25% and 50% price reduction conditions while average monthly profits per machine did not change.³¹ In a second study, when the price for fresh fruit and baby carrots was cut by 50%, sales of fresh fruit increased four-fold, and sales of baby carrots doubled.³⁷ Sales returned to baseline levels with the reinstatement of usual prices. Vendors could use profits from unhealthy foods to subsidize healthier options.

Designate spaces for Green Carts on campuses.

Most Americans do not get the amounts of fruits and vegetables necessary for optimal health and well being.^{38,39,40} According to our survey of CUNY students, only 10% consume the recommended amounts of fruits and vegetables daily. It's hard to argue with the health benefits of a diet rich in vegetables and fruit: weight loss, lower blood pressure and reduced risk of heart disease, stroke, diabetes and probably some cancers. Increasing the accessibility of fresh fruits and vegetables can be important in changing food choice behavior.⁴¹ It has been clearly shown that increasing both availability and the promotion of healthier foods can have a positive effect on secondary school students' food purchases and on their perceptions about the food environment at school.⁴² Interestingly, these results were achieved without a classroom educational component or a home-based family component demonstrating the positive impact of improving the food environment alone.



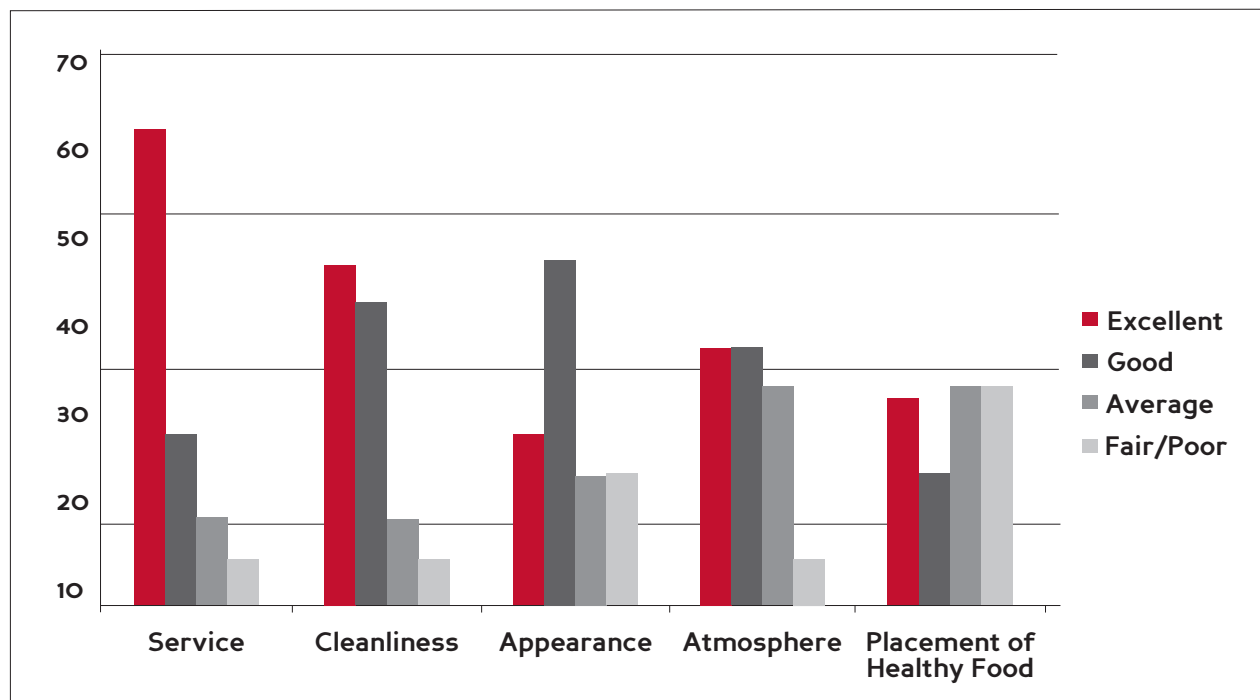
In 2008, the New York City Council and Mayor established a Green Carts program to increase the availability of fresh and affordable produce in New York City's low income neighborhoods. CAD urges each campus to ask the New York City Department of Health and Mental Hygiene to award additional Green Cart permits to vendors who agree to sell on or near their campus.

Provide a place to eat that is both comfortable and pleasant.

Undoubtedly the ambiance of a dining facility plays a key role in attracting customers. Additionally, the social environment on campus or at the worksite is an important environmental influence on individual food choices.⁴³ Aramark, a Philadelphia-based food service provider, conducted extensive "DiningStyles" research on high school campuses, to get a comprehensive, cross-segment look at what students wanted. Based on their findings they developed a concept for an environment that encourages students to utilize the school cafeteria. The changes have proved both cost-effective and successful. Same-school sales increased by an average of 15% to 22% in all locations that added the concept.⁴⁴ We call on each CUNY campus to develop specific ways to improve cafeteria environments that are conducive to a healthy and pleasant eating experience. Currently, almost two-thirds of CUNY students don't use campus cafeterias. By making healthier and more affordable food available in more attractive and comfortable environments, CUNY can contribute to healthier students, more sociable campuses and increased revenue for vendors and the University.



TABLE 9: AVERAGE ENVIRONMENT RATINGS OF 18 CUNY CAFETERIAS, SPRING 2009



The raters based their scores on wait time and helpfulness of staff; the cleanliness of the counters, floors tables and waste receptacles; the appearance of the food (was it appetizing to them); the overall ambiance of the dining facility (was it pleasant and a place one could enjoy a meal); and on how easy it was to locate the healthy food.

Offer healthy food options in cafeterias at an affordable price.

Reducing the cost of healthy options is an effective strategy to promote healthier food choices.⁴⁵ The lower cost of high calorie low nutrient food contributes to the unhealthy food intake patterns observed among low socioeconomic groups.⁴⁶ According to our survey, 47% of CUNY students live in households with

“There is healthy food we can buy, but it is too expensive.” Hunter Employee : annual incomes of \$40,000 or less. Thus, they constitute a market sensitive to price differences. Our finding that healthy items at CUNY cost 52% more than less healthy choices suggests that current pricing policies may contribute to poor health particularly among our most vulnerable students and employees.

By requiring food service vendors to provide healthy, readily available and affordable meals the CUNY community will be able to choose tasty meals that are also inexpensive and convenient. We therefore urge campus business offices and Enterprise Boards (the campus group that negotiates contracts) to require CUNY food vendors to offer at least a few healthy meal options each day at prices comparable to or lower than less healthy options. These healthy options should be marketed aggressively and displayed prominently. Another suggestion is to make salad free for any paying customer, thus encouraging consumption of vegetables.

Involve students and employees in menu planning.

CUNY students and employees are an extremely ethnically, culturally and academically diverse group. For example, Medgar Evers is 93% African American, while Hostos Community College is 60% Hispanic and Hunter is 73% non-white.⁴⁷ These students would be eager to have a voice in menu planning. Involving those who work and attend school on each campus in menu planning would allow the tastes and preferences of those attending the institution to be considered, thus improving the eating environment. The Campaign recommends that each campus require each vendor to establish a student advisory board that meets at least monthly to discuss menu planning. Once again, food service vendors can increase revenues by meeting the needs of CUNY’s diverse community.

Provide water coolers and make it easier for students and staff to bring food from home.

While all schools provide water fountains, they are typically found near rest rooms and often in poor condition. Very few are located in cafeterias or near vending machines. Additionally, it is difficult to fill a water bottle from a fountain. A water cooler with cups or a water fountain designed to allow the filling of containers, located in the dining facility and near vending machines, would give individuals the choice between an expensive, high calorie, highly sweetened beverage or a free glass of water to quench their thirst. This would also reduce the environmental threat from disposable plastic water bottles. Metropolitan Food Service has taken a step in the right direction and now offers filtered water at City College. However, there is a 50-cent charge.



Additionally, microwaves and refrigerators would entice more employees and students to “brown bag” and stretch their food budget. Food prepared at home is less expensive, has less fat and fewer calories than food purchased outside the home.⁴⁸

Require nutrition education in all freshman seminar classes and offer other campus-based opportunities to learn about nutrition, healthy eating and cooking.

“I walked past the burgers, chicken tenders and French fries to find it. SUSH!! Hunter College has sushi! Now when I get hungry, I know where to go for food-- Hunter’s cafeteria!” Hunter Student

Curriculum related to healthy eating and choosing appropriate food options should be included in all freshmen seminar classes, the orientation sessions CUNY offers for most new students. Such guidance has the potential to reach thousands of CUNY students and indirectly their families and friends. Teaching young people is vital to reverse the epidemics of obesity and diabetes. To assist with this endeavor, the Campaign has developed a nutrition education module designed to motivate college students to make more healthful, affordable food choices and to increase their awareness of the individual and societal causes and consequences of poor eating habits. This module is available to all CUNY faculty at: cuny.edu/diabetes.

What Individuals Can Do:

Eat less and move more!

Don’t eat more food than your body needs. Most college students have a life that is filled with hours of sitting and studying, drinking pints of beer on the weekends and chowing down on fast food which results in the dreaded “freshmen 15,” extra weight gained in the first year of college. CUNY students may have more demanding lives than other college students but they have the same high rates of obesity and overweight as other young New Yorkers. Daily calorie needs vary greatly depending on your age, sex, height, weight, and activity level. Determine your calorie requirement by going to: <http://www.healthfinder.gov/docs/doco8652.htm>. Don’t exceed your caloric needs!

Don’t drink your calories.

Soft drinks and other sweetened beverages are the single biggest source of calories in the American diet, providing about 9% of calories for adults and 13% for teenagers.²⁸ Drink only water, skim milk and calorie free beverages.

Enjoy plenty of fruits and vegetables.

Do you eat 2 to 4 servings of fruit and 3 to 5 servings of vegetables daily? The majority of CUNY students don’t. Fruits and vegetables are low in calories and are packed with nutrients vital for good health. Avoid fruit juices and drinks which can contain up to ten teaspoons of sugar per cup; and limit fried vegetables or ones smothered in dressings or sauces – you may still get the vitamins, but you’ll be getting a lot of unhealthy fat and extra calories as well. Fruits and vegetables should be part of every meal, and your first choice for a snack. So, stop and shop at that Green Cart or fruit and vegetable store you pass on the way to school!



Have some soup.

Soup can be a great low-cal, low-fat satisfying meal. But it can also be a pretty bad choice. Avoid cream-based soups, as well as those made with cheese and fatty meats (that means Cheddar Cheese Bacon Soup and Cream of Broccoli Soup are NOT good choices!) Choose clear broth based soups that are full of veggies, lean meat, beans, and/or grains, such as chicken noodle, vegetable, minestrone or lentil soup.



Build a better sandwich.

Choose bread, rolls, pitas or wraps made from whole grains. Fill up the sandwich with vegetables. If you're buying a pre-made sandwich, pick up some extra veggies from the salad bar and add them to the sandwich. Avoid fatty meats such as bologna, salami and pastrami. Stick to turkey, roast beef, chicken and ham. And stay clear of mayo-based fillings such as tuna salad which can contain between 400 and 500 calories and 30 or more grams of fat per serving. Add condiments such as mustard, salsa, vinegar or low fat dressings from the salad bar.

Visit the salad bar.

If your cafeteria has a salad bar load up your plate with lots of fresh vegetables like leafy greens, cucumbers, tomatoes, broccoli, bell peppers and carrots. To round out the meal add lean protein such as chicken, turkey or egg whites. Try salads made with beans, lentils and different grains for extra fiber. Don't destroy your salad by dousing it with heavy dressing. Stick with fat-free dressings, low fat dressing, lemon juice or vinegar. No low-cal or low-fat salad dressing on display? Ask! Sometimes the food service will have some fat-free packets available or you can make your own with a few splashes of vinegar or some lemon juice and a little oil. All salads are not created equal. If you choose lots of creamy dressing, bacon bits, mayonnaise based salads, oil, croutons and cheese the calories and fat may equal or even exceed those of a burger and fries and cost much more.

Listen to your body.



Before you grab that snack, ask yourself if you are really hungry. You may actually be bored, stressed or enticed by the sight of the donut counter. We eat for many reasons, but hunger is the only good one.

*“It is great that I can get brown rice and steamed or stir-fried veggies quickly and regularly.”
Kingsborough Faculty*

So, if you are not hungry, don't eat. During a meal, stop eating before you feel full. It actually takes a few minutes for your brain to tell your body that it has had enough food, so eat slowly. Eating just enough to satisfy your hunger will help you remain alert, relaxed and feeling your best.

Demand change!

Let your feelings about cafeteria food choices be known. If your cafeteria isn't offering enough healthful options, speak to the manager, write a letter or better yet start a petition. Make specific suggestions such as grilled chicken rather than chicken nuggets, steamed vegetables rather than veggies drowning in butter, whole grain bread as opposed to white bread, vegetable omelets in lieu of cheese and bacon ones and request a wide variety of fresh fruit.

***Join the CUNY Campaign Against Diabetes.***

The Campaign works with students around the university to change food and physical activity policies, develop programs and educate students, faculty and staff about health, obesity and diabetes. Do you want to survey the food in your cafeteria or organize a campaign to improve food on your campus? Call, email or visit us at the addresses below so you can be part of the movement to make CUNY the healthiest urban university in the Country.

Email Us to Learn About Campaign Programs

To learn how to manage your diabetes: CUNY.diabetes.ed@gmail.com

To join a CUNY walking group: CUNYwalks@gmail.com

To apply for student diabetes workshops: CUNY.workshop@gmail.com

To ask a question about nutrition or diabetes: CUNY.CDE@gmail.com

To volunteer to join the campaign: CUNYdiabetes@gmail.com

Campaign Against Diabetes

CUNYdiabetes@gmail.com

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APPENDIX A: METHODS

Although public health interest in environmental approaches to health behavior interventions has been growing, valid and reliable measures for assessing the food and physical activity environments in the workplace and on college campuses are lacking.^{49,43} Thus, our first step was to develop instruments to assess food options for students. Two focus areas were selected: the main cafeteria on each campus and vending machines. In future work, we will also examine food availability in the commercial outlets surrounding CUNY campuses and the availability and condition of campus exercise facilities.

Eighteen CUNY campuses were visited by at least two students enrolled in the Hunter College nutrition or public health programs. The students were trained and supervised by a registered dietitian who is a doctoral student in public health. Since both objective and subjective environments appear to be important influences on food and physical activity behaviors,^{50, 51, 52} we also conducted a separate survey of students at three campuses to better understand their perceptions of the food environment at CUNY.

To evaluate the food served at CUNY, an instrument was developed that focused on three areas: atmosphere, availability, and cost. This tool allowed the surveyors to rate the environment, on a scale of one to five, in terms of cleanliness, customer service, food appearance, food placement and overall atmosphere. It also enabled the surveyors to make a quantitative assessment of the number of healthy cold food items, hot food items and salad bar items. Criteria were established to judge a food as healthy or unhealthy. A food was rated as healthy if it met the 2005 Dietary Guidelines for Americans. These guidelines encourage lean proteins, limiting fat (specifically saturated and trans fat), sugar and sodium. The surveyors were given specific procedures to rate several categories of food including; proteins, combination entrees, vegetables, grains and legumes. To make the survey manageable breakfast foods, desserts, condiments and beverages were not individually rated. Availability of low fat milk, free tap water, low fat salad dressings fruit and vegetables were noted. These simple dichotomous ratings, (healthy/not healthy, available/not available) were established for convenience and because we did not have access to the specific nutrient content of foods to make a more precise assessment of nutritional value. A cost comparison was made of five or six foods rated healthy versus five or six comparable items rated unhealthy on each campus.

To obtain a representative sample of vending machines, surveyors were instructed to record the items sold in the first three snack machines they noticed upon entering the building. A *Survey of School Vending Machines*, available from the Center for Science in the Public Interest (CSPI), was chosen to evaluate campus vending machines.⁵³ This tool was used in nationwide survey of 1,402 vending machines in middle schools and high schools and found that eighty-five percent of the snacks sold from vending machines are of poor nutritional value.⁵³ CSPI found that of the snack foods sold in the machines, candy (42%), chips (25%) and sweet baked goods (13%) accounted for eighty percent of the options. Of 9,723 snack slots in all the vending machines surveyed, only 26 slots contained fruits or vegetables.⁵³ Thus, it was deemed important to assess the food available in vending machines as it is a significant part of the food environment.

APPENDIX B: LIMITATIONS

Several factors limit the validity and generalizability of our findings. First, we did not measure the absolute nutrient content of menu items because we did not have knowledge of ingredients or recipes used. Second, several of the food service managers made it difficult for the surveyors to assess the food available and in fact some asked the students to leave, making it difficult to complete a full assessment. Since most cafeterias were only visited on one occasion by two students we did not think it was fair to disclose the individual cafeterias that were considered by the surveyors to be dirty, have poor service or unappetizing food. While we did not test inter-rater reliability, we believe that the collective descriptions of the cafeteria and food, provide an accurate assessment of the overall environment at CUNY as ratings were made by six students with extensive background in the subject matter and thorough training on the methods and instrument used to complete the assessments.



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