An Assessment of the Food and Physical Activity Environment on a University Campus

Supplemental Materials

Healthy Campus Environmental Audit Methods

Campus Environmental Demographic Audit (CA)

The CA focused on the geographic, demographic and environmental characteristics, which were gathered from the Rutgers and various national websites, Cook Campus Deans Office and the Rutgers Institutional Research and Academic Planning Department (Rutgers, The State University of New Jersey, 2017). CA included characteristics such as campus information (e.g., number of residence halls, dining halls/cafeterias, food courts, and cafés); student information (number of students, percentage of students living on campus, sex/gender, race/ethnicity, in-state/out-of-state students, and student-to-teacher ratio); school crime rates, obesity rates, numbers of grocery stores, WIC-authorized stores, fast-food restaurants, farmers markets, and recreation and fitness facilities per 1,000 population (Country Health Rankings & Roadmaps, 2017; U.S. Department of Agriculture, 2017).

FRESH Audit

The FRESH audit assessed the healthfulness of the environment in restaurants, dining halls, and food courts by evaluating the availability of types of food, preparation descriptions, and supportive strategies for making healthy dining decisions. Using the campus and environment maps, 82 (eight on campus and 74 off campus) restaurants were identified. The Get Fruved study guidelines recommended auditing 30% (equal to 24) of the available restaurants in the study area or the restaurants that students frequently visit. As a result, eight campus restaurants and 16 off campus restaurants were identified, and after deleting the two cafés that were present both on and off campus locations, a total of 22 restaurants were audited.

The FRESH audit scores consisted of two categories: food and support. The food category (scale range: 0-60 points) encompassed the variety of healthy foods available (all food groups, dinners, sides, and salads) such as lean meats, healthy vegetarian entrées, whole grain, low-fat or non-fat food and beverage options at the dining facilities. The support category (scale range: 0-40 points) encompassed mechanisms that are available to make healthy choices (labeling, allowed substitutions, portion sizes, nutrition information, signage for healthy or unhealthy options, pricing, and sustainability).

PACES Audit

The PACES audit gauged the recreation facilities and programs available to students and included two audits; one for an individual facility and one for the overall campus recreation environment. In this study, there was only one campus recreation facility that could be audited. The facility had to be audited during peak times, which was determined to be from 6 pm to closing time after asking the students, who went to that gym on a daily basis.

The PACES audit scores were separated into five categories: facility supports (scale range: 0-15) included qualification and accessibility of staff and equal access status; facility equipment (scale range: 0-20) included quality of aerobic and strength training equipment; facility walk/bike (scale range:0-15) included supports for biking, such as bike racks, and stair features; facility total score (scale range 0-50) included the total of all facility sub scores; and campus score (scale range: 0-70) included the quality and extensiveness of health and fitness programs.

POINTS Audit

The POINTS audit measured the extensiveness and quality of health promotions and obesity prevention interventions, programs, and policies on the campus. Information on these policies were gathered from online Rutgers University Policy Library and other Rutgers websites.

The POINTS audit scores were separated into six categories, which were all scored on a scale of 0 to 100: supports to limit stimulants (alcohol and drugs), supports for chronic disease prevention, supports for active environment (encouraging physical activity), supports for encouraging healthy eating, student average score (average of all sub scores in relation to the student population vs. employees), and supports for comprehensiveness of policies (monitoring and enforcement of policies).

VENDing Audit

The VENDing audit assessed the content of the vending machines through the use of nutrient density scores as a measure of healthfulness and the availability of healthy snacks/beverages. For the VENDing audits, UT guidelines recommended auditing 30% of the vending machines by either auditing all the machines in one building or one snack and one beverage machine in each building. Because Rutgers has many buildings, a decision was made to audit one beverage and one snack in each building. Six of the 15 academic classroom buildings, eight of the 13 residence hall complexes, two student centers, and one of the two libraries had a total of 34 vending machines. The access to the residence halls was limited to its residents, but the vending machines in the living quarters were reported, by the administration, to have the same contents of the vending machine in the Residence Life main office; therefore, this snack vending machine was audited and the contents were replicated for the eight residence hall complexes.

The machines with covered front panels (n=14), which made it impossible to inventory the contents, were excluded from the audits to avoid inaccurate data. A total of 16 snack machines and 4 beverage machines were audited.

The VENDing audit scores were separated into three categories: snack nutrient density (scale range: 0-7; 0: not present in the machine; 1-2: unhealthy snacks present; 3-4: somewhat healthy snacks present; 5-7: healthy snacks present), beverage nutrient density (scale range: 0-2; 0: unhealthy beverages; 1: somewhat unhealthy beverages; 2: healthy beverages present), and vending supports (scale range: 0-10). Availability of somewhat healthy and healthy snacks/beverages were also presented as a percentage of all available snacks/beverages. The vending supports included prices of healthy/unhealthy products, availability of nutrition, local, organic, and sustainable product information, and product logos).