

Position Paper Nutrition on University Campuses

Ann Lokuta, MPH, RD

Amy B. Locke, MD, FAAFP

Wellness and Integrative Health, University of Utah Health

Diet is the single most significant risk factor for chronic disease and early death. Thus, dietary habits are crucial to improving individual health (Devries et al., 2014). Despite the significance of risk, many struggle to implement positive lifestyle habits or wait until disease is present to begin making change. Campuses have the opportunity to support healthy nutrition and empower students, faculty, staff and visitors to practice healthy behaviors.

University campuses are unique in that they can function as academic institutions for undergraduate and graduate students, as worksites for faculty and staff, and sometimes as healthcare systems for patients and visitors. These groups span a range of ages and stages in life, with differing levels of health knowledge and motivation to improve wellness.

The food environment on campus has the potential to impact nutrition knowledge, motivation to change, and dietary intake of the academic community in either a beneficial or detrimental way. This environment refers to the number, type and accessibility of food locales, as well as the availability, cost, quality and promotion of food and beverage products (Roy, Kelly, Rangan, & Allman-Farinelli, 2015).

The American College Health Association (ACHA) offers the National College Health Assessment II (NCHA II) to universities to collect data on student health habits, behaviors and perceptions. The spring 2017 survey reported that 22 % of undergraduate students are overweight and 11.7 % are obese (American College Health Association [ACHA], 2017b). On average, undergraduate students tend to gain 2.2–6.6 pounds during their first year at college (Roy et al., 2015). This rate of weight gain per year could translate to 8.8–26.4 pounds gained over a four-year college career. Furthermore, only 5.4 % of students reported eating the recommended intake of fruits and vegetables per day: greater than or equal to five servings (ACHA, 2017b). The graduate or professional student reference group displayed similar results, with 22.6 % of the population overweight and 11.4 % obese. Only 7.6 % of respondents consume the recommended amount of fruits and vegetables in per day (ACHA, 2017a).

The ACHA-NCHA II reported that 48.6 % of undergraduate and graduate students did not receive any information on nutrition from their college or university, despite 65.1 % reporting an interest in receiving information (ACHA, 2017c).

College students spend a considerable amount of time on campus, yet the Bureau of Labor Statistics American Time Use Survey revealed that on average, only an hour of their day is spent eating and drinking (Bureau of Labor Statistics [BLS], 2016). This suggests that food and beverage choices are often quick, on-the-go options. Additionally, young adults in college tend to have lower disposable incomes, which may lead them to prioritize convenience and cost over nutrition (Roy et al., 2015).

Campus food environments usually include vending machines, cafeterias, convenience stores and cafe options. The type of products offered and the marketing messages in these venues can influence the food and beverage choices of campus consumers. One study looked at five days of dietary data collected from university students via a



smartphone application and found that diet quality decreased as on-campus food and beverage consumption increased (Roy et al., 2017). This implies that the current food environment on campus encourages less nutritious choices versus nourishing food and drink.

Although college campuses often focus primarily on the health of their students, they also serve as the worksite for all faculty and staff. Campus employees often spend the majority of their day at work, making them especially susceptible to the influences of the food environment. The shift in health toward higher rates of chronic disease associated with poor diet can lead to decreased work productivity, higher rates of absenteeism, and higher health insurance costs (Beeler, Roy, Lang, Payne, & Howard, 2016). For those campuses that include healthcare systems, the potential populations affected are broadened to also include patients and visitors. Hospital cafeterias and public cafes are frequented by employees, patients, and visitors, making them ideal targets for nutritional interventions. Although healthy food initiatives at hospitals are growing, most efforts have focused on creating nutrition standards for vending machines, while fewer hospitals have focused on creating standards for cafeterias and cafes (Moran, Krepp, Johnson Curtis, & Lederer, 2014). However, health systems are increasingly reducing sugar-sweetened beverages to improve health in patients and employees, with at least 30 health systems eliminating them nationwide.

RECOMMENDATIONS

The following recommendations are based on USDA and other national guidelines for healthy nutrition. The American Heart Association (AHA) published a guideline outlining recommended nutrition standards for the workplace in 2009 (American Heart Association [AHA], 2009). These outline specific nutrition goals, as well as implementation recommendations. Alliance for a Healthier Generation targets high school and younger children, but its recommendations are also appropriate for older students and adults (Alliance for a Healthier Generation, 2013).

- Create written nutrition standards for foods and beverages served. Consider creating standards that limit nutrients of concern, like sodium, saturated fat, and added sugars, while incorporating rich sources of vitamins, minerals, and fiber (AHA, 2009; Onufrak et al., 2016).
- Provide access to and availability of fresh fruits and vegetables at most, if not all, food venues (AHA, 2009).
- Make fruits and non-starchy vegetables the default side for meals or follow a MyPlate guide when structuring portions and sides for meals (AHA, 2009).
- Limit sweet beverage portion size to 20 ounces or less. Consider having even smaller portions, such as 8 ounces or less, available (Gardner et al., 2014).
- Consider eliminating all sugar-sweetened beverages. Eliminating sugar-sweetened beverages is becoming a common practice in the health care setting (Gardner et al., 2014).
- Have water available free of charge. This can be achieved by providing water bottle filling stations and/or having cups available in venues (Alliance for a Healthier Generation, 2013; Gardner et al., 2014; Center for Disease Control: Division of Nutrition, Physical Activity and Obesity [CDC], 2018).
- Have non-sweetened beverages, such as sparkling water, unsweetened tea, and unsweetened coffee, available at all venues.
- Offer healthier food and beverage options at a discounted price to encourage consumers to purchase these items (AHA, 2009; Tam, Yassa, Parker, O'Connor, & Allman-Farinelli, 2017; Jilcott Pitts et al., 2016).
- Limit high added sugar, highly processed or high sodium snacks (AHA, 2009).

- Increase marketing for healthy snack items to encourage the consumer to choose these items on their own. Include educational but also descriptive flavor marketing.
- Decrease portion sizes that do not meet USDA recommendations, while adding vegetable or fruit as the side. Use this as a tool to educate on portion size moderation and mindfulness (AHA, 2009).
- Implement on-campus farmer's markets (CDC, 2018).
- Target healthy point-of-sale snack selections at cash registers by designating healthy checkout lanes (Jilcott Pitts et al., 2016).
- Have a healthier catering menu available (AHA, 2009)
 - Do not routinely offer sweet beverages at catered events (AHA, 2009).
 - Do not routinely offer dessert at catered events, or offer smaller bite-sized desserts (AHA, 2009).
- Create a single label to help consumers easily identify the healthier option. Universities nationwide are establishing branded single labels. Examples include the University of Utah's RD Approved program and the University of Michigan's MHealthy program (Institute of Medicine, 2011).
 - Create nutrition criteria to decide which products to label
- Partner with university marketing to promote healthier food choices and initiatives on campus (Jilcott Pitts et al., 2016).
- Build interdepartmental relationships to increase involvement in and knowledge of program; include dietitians in planning, and create advocates in departments throughout the university (Jilcott Pitts et al., 2016).

ENDORSEMENT

The National Consortium for Building Health Academic Communities (NCBHAC) is a national organization dedicated to crafting and promoting a comprehensive approach to the health and well-being of students, faculty and staff. NCBHAC is dedicated to enhancing campus-wide wellness efforts, eliminating silos, and sharing best practices. NCBHAC has created a series of position papers devoted to helping institutions address the urgent health issues of the day. This position statement reflects the views of NCBHAC and serves only as a collection of recommendations and guidelines. The purpose of NCBHAC position papers is to assist academic institutions in creating wellness programming, advocating for resources, enhancing the academic mission of the institution, and getting broad support for wellness efforts.

REFERENCES

- Alliance for a Healthier Generation. (2013). Healthy Schools Program framework: Criteria for developing a healthier school environment. Retrieved from https://schools.healthiergeneration.org/_asset/1062yk/07-278_HSPFramework.pdf%29.Link.
- American College Health Association. (ACHA; 2017a). National College Health Assessment II Graduate/Professional Student Reference Group Executive Summary Spring 2017. Retrieved from http://www.acha-ncha.org/docs/NCHA-II_SPRING_2017_GRADUATE_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf
- American College Health Association. (ACHA; 2017b). National College Health Assessment II Undergraduate Student Reference Group Executive Summary Spring 2017. Retrieved from http://www.acha-ncha.org/docs/NCHA-II_SPRING_2017_UNDERGRADUATE_REFERENCE_GROUP_EXECUTIVE_SUMMARY.pdf
- American College Health Association. (ACHA; 2017c). National College Health Assessment II Reference Group Data Report Spring 2017. Retrieved from http://www.acha-ncha.org/docs/NCHA-II_SPRING_2017_REFERENCE_GROUP_DATA_REPORT.pdf
- American Heart Association. (AHA; 2009). Recommended nutrition standards for procurement of foods and beverages offered in the workplace. Retrieved from http://www.heart.org/idc/groups/heart-public/@wcm/@adv/documents/downloadable/ucm_320781.pdf
- Beeler, G.R., Roy, K., Lang, J.E., Payne, R., & Howard, D.H. (2016). Absenteeism and employer costs associated with chronic diseases and health risk factors in the US workforce. *Preventing Chronic Disease, 13*, 150503. <https://doi.org/10.5888/pcd13.150503>
- Bureau of Labor Statistics. (2016). American Time Use Survey: Time use on an average weekday for full-time university and college students. Retrieved from <https://www.bls.gov/tus/charts/students.htm>
- Center for Disease Control: Division of Nutrition, Physical Activity and Obesity. (CDC; 2018). Strategies to Increase Access to Healthy Food and Beverages. Retrieved from <https://www-cdc-gov.ezproxy.lib.utah.edu/nccdphp/dnpao/state-local-programs/nutrition.html>
- Devries, S., Dalen, J.E., Eisenberg, D.M., Maizes, V., Ornish, D., Prasad, A., ... Willett, W. (2014). A deficiency of nutrition education in medical training. *American Journal of Medicine, 127*(9), 804-806. <https://doi.org/10.1016/j.amjmed.2014.04.003>
- Gardner, C.D., Whitsel, L.P., Thorndike, A.N., Marrow, M.W., Otten, J.J., Foster, G.D., ... Johnson, R.K. (2014). Food-and-beverage environment and procurement policies for healthier work environments. *Nutrition Reviews, 72*(6), 390-410. <https://doi.org/10.1111/nure.12116>
- Institute of Medicine. (2011). Front-of-Package Nutrition Rating Systems and Symbols: Promoting Healthier Choices. Retrieved from <https://www.nap.edu/resource/13221/frontofpackagereportbriefFINAL.pdf>
- Jilcott Pitts, S.B., Graham, J., Mojica, A., Stewart, L., Walter, M., Schille, C., ... Simon, C. (2016). Implementing healthier foodservice guidelines in hospital and federal worksite cafeterias: barriers, facilitators and keys to success. *Journal of Human Nutrition & Dietetics, 6*, 677-686. <https://doi.org/10.1111/jhn.12380>

- Moran, A., Krepp, E.M., Johnson Curtis, C., & Lederer, A. (2014). An Intervention to Increase Availability of Healthy Foods and Beverages in New York City Hospitals: The Healthy Hospital Food Initiative. *Preventing Chronic Disease*, 2016(13), 150541. <https://doi.org/10.5888/pcd13.150541>
- Onufrak, S.J., Zaganjor H., Moore, L.V., Carlson, S., Kimmons, J., & Galuska, D. (2016). Nutrition Standards for Food Service Guidelines for Foods Served or Sold in Municipal Government Buildings or Worksites, United States, 2014. *Preventing Chronic Disease*, 13, E172. <https://doi.org/10.5888/pcd13.160364>
- Roy, R., Kelly, B., Rangan, A., & Allman-Farinelli M. (2015). Food Environment Interventions to Improve the Dietary Behavior of Young Adults in Tertiary Education Settings: A systematic literature review. *Journal of the Academy of Nutrition and Dietetics*, 115, 1647-1681. <https://doi.org/10.1016/j.jand.2015.06.380>
- Roy, R., Rangan, A., Hebden, L., Chun Yu Loui, J., Ming Tang, L., Kay, J., & Allman-Farinelli, M. (2017). Dietary contribution of foods and beverages sold within a university campus and its effect on diet quality of young adults. *Nutrition*, 34, 118-123. <https://doi.org/10.1016/j.nut.2016.09.013>
- Tam, R.M., Yassa, B.M., Parker, H., O'Connor, H., & Allman-Farinelli, M. (2017). University students' on-campus food purchasing behaviors, preferences, and opinions on food availability. *Nutrition*, 37, 7-13. <https://doi.org/10.1016/j.nut.2016.07.007>
-

Address Author Correspondence to:

Ann Lokuta, MPH, RD
Associate Instructor, Wellness
Office of Wellness and Integrative Health
295 Chipeta Way, Ste 248
Salt Lake City, UT 84108 | 801-213-3778
Ann.Lokuta@hsc.utah.edu