Addressing diet-related chronic diseases requires a multi-faceted approach. Education is an important part of any effort to improve health, but education alone rarely results in behavior change.

Changing the environments in which people live, work, study, play and pray to make healthy choices the easy, default choices is critical for improving health (see Figure 1). For these reasons, public health experts recommend policy, systems, and environmental (PSE) changes in worksites, among other sectors, to promote healthy beverage choices and reduce consumption of sugary drinks. Recommended, evidence-
Based PSE strategies include: providing access to free, safe drinking water; limiting access to sugary drinks; promoting access to and consumption of healthy beverages; and using pricing strategies to make healthy drink choices more affordable than unhealthy ones.

Hospitals and healthcare organizations can be thought leaders and role models for PSE changes because of their healthcare mission and their influence as major employers within their communities. For these reasons, the American Academy of Pediatrics, American Heart Association and American Medical Association (AMA) have called on healthcare organizations to create healthier food and beverage environments.\textsuperscript{2}

**Figure 1: The Health Impact Pyramid**

Interventions that affect socioeconomic factors (such as poverty, education, housing, racism, and other inequities) are likely to have the greatest public health impact.

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Positioned to Lead

As experts on health and healthcare providers, hospitals are well positioned to lead in modeling the kinds of healthy food and beverage choices they recommend for patients. Hospitals and healthcare organizations touch the lives of millions of consumers each year. Most adults (84.4%) have interacted with a doctor or healthcare professional in the past year, and 7.1% of people living in the U.S. stayed at least one night in a hospital, equating to more than 35 million hospital stays each year.

Unhealthy weights and poor diet contribute to the leading causes of death, including heart disease, cancer, stroke, and diabetes. Research also shows that diet quality is linked to better treatment outcomes for chronic diseases such as cancer. Thus, supporting health-promoting behaviors and choices is inherently consistent with the mission of hospitals and healthcare organizations to prevent and treat chronic disease and other health problems.

Hospitals also help set social norms. In recent decades, clinicians and hospitals played an important role in changing social norms around commercial tobacco use, helping to decrease smoking rates significantly. Public health authorities believe hospitals and healthcare organizations can play a similar role in reducing sugary drink consumption. As the American Academy of Pediatrics and American Heart Association noted in their recent recommendations on the health hazards of sugary drinks, “A well-publicized effort to reduce sugary drink consumption among hospital patients, visitors, and staff could help build public awareness of the links between sugary drink consumption, obesity, and diabetes. These efforts could also signal to employers and leaders in other settings that reducing sugary drink sales and promotion in worksites and public spaces is an important and feasible approach to improving population health.”

Challenges and Opportunities

Despite these considerations, healthcare settings too frequently feature food and beverage environments that are inconsistent with a health mission. Several studies have documented that many U.S. hospitals, including children’s hospitals, host fast-food franchises, provide fast-food menu offerings for staff, patients and visitors, and sell unhealthy foods and beverages in vending machines and gift shops, including sugary drink offerings. For example, a 2012 study found that about 42% of teaching hospitals affiliated with universities in California had at least one fast food outlet on site. The challenge of hospitals hosting fast food restaurants is so pervasive that the Physicians Committee for Responsible Medicine has a project devoted to tracking the phenomenon
and raising awareness about it.9 Another study observed that 79% of healthcare facilities included in the study had vending machines (with hospitals having the highest average number per facility compared to health departments and clinics), and that soda and candy were the most common items sold in the machines.10 As one 2013 study reported, “The average consumer nutrition environment of hospitals in this sample was minimally conducive to healthful eating.”11

Furthermore, research indicates that hospital food and beverage environments can influence future dietary choices, serving to either reinforce or undermine a hospital’s health mission over the long term. For example, one study reported that the existence of fast food at a hospital was associated with more positive perceptions of fast food — including healthiness — among parents visiting the hospital.12 And when consumers perceive unhealthy options more favorably, they are more likely to consume more of them.13

By fostering healthy food and beverage environments, hospitals and healthcare sites can model the healthy behaviors they advise for their patients, and also for their staff, visitors, and wider communities. As noted in a 2013 commentary in the Virtual Mentor, the American Medical Association’s ethics journal, “Given that many leading causes of preventable illness and premature death in the U.S. — obesity, diabetes, heart disease, cancer — are diet-related, it is logical that hospitals have a stake in providing health-promoting food. Doing so helps a hospital fulfill its mission to prevent disease and promote wellness and health, both by sending a message about proper nutrition and by nourishing patients, students, volunteers, staff, visitors, and others.”14

**Leading for Communities**

The work environment influences employee beverage and food choices in conscious and subconscious ways. Most employees spend at least eight hours a day in the workplace, and for employees who cannot go off-site during their shifts, their food or drink choices will be dictated by what they bring with them or what they can buy at their workplaces. A 2019 report found that nearly a quarter of adults purchase or obtain some type of food or beverage while at work during a given work week, and that sugary sodas were the number one purchased food or beverage item.15 Policies directing what drinks or foods can be served during meetings or other work events also help shape dietary choices. Strong evidence supports the effectiveness of workplace obesity prevention and control programs that include improved access to healthy foods in vending machines and cafeterias.16

Hospitals and healthcare organizations are natural leaders for modeling worksite healthy eating policies because they are often anchor institutions in their communities that employ many community members.17 Roughly 10% of the U.S. working age population is employed in the healthcare and social assistance industry,18 including 5.3 million who are employed by
Employment by hospitals has increased 12% since 2009, and hospitals are often major employers in their states (see Box 1).

The challenges of (and opportunities for) promoting access to healthy food and drink choices exist in healthcare settings as they do in other kinds of worksites, and maybe even more so. Within healthcare facilities, vending machines may be the only source of food or drink for staff — as well as for patients and visitors — when the cafeteria is closed or is otherwise not available. A recent survey of over 10,000 nurses, for example, found that only half had access to healthy foods at work. When employees are unable to make healthy food choices at work, it impacts their health. Studies have found that healthcare employees, including hospital workers, are more likely to have asthma, diabetes, hypertension, obesity, heart disease or experience a stroke. Another study found that employees who purchased the least healthy food in a hospital cafeteria were more likely to have a worse diet overall, have obesity, and have other risk factors for diabetes and heart disease. These health challenges are costly for hospitals (see Box 2).

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**Box 1: Healthcare and Hospital Employment in Missouri**

- Of the top 20 employers in Missouri, seven are hospitals or health systems.
- Missouri’s healthcare systems employ approximately 88,000 workers.
- Demand for healthcare workers in Missouri is projected to increase by 20% between 2019 and 2030.

Sources: U.S. Dept. of Labor, State Profile: Largest Employers (2020); Missouri Hospital Association, Missouri’s Health Care Workforce (2019).

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**Box 2: The Costs of Chronic Diseases in Missouri**

- Chronic diseases are expected to cost Missouri $828 billion in medical costs ($591 billion) and lost employee productivity ($237 million) between 2016 and 2030.
- Specifically, diabetes and prediabetes alone cost Missouri $5.9 billion each year through direct medical costs ($4.5 billion) and lost productivity ($1.4 billion).

Sources: Partnership to Fight Chronic Disease, What is the Impact of Chronic Disease on Missouri (2015); American Diabetes Association, The Burden of Diabetes in Missouri (2019).
Healthcare costs for hospital employees have been reported to be 10% higher than the average cost for U.S. workers, and diet-related chronic diseases, such as those linked to sugary drink consumption, are key drivers of these costs. Researchers hypothesize that a health system with 16,000 employees could save $1.5 million per year in medical and pharmacy costs for each one percent decrease in employee health risk. For more discussion about how healthy beverage policies and initiatives factor into employee healthcare cost considerations, see the fact sheet Healthy Beverage Policies, Healthy Bottom Lines.

Just like individual behavior change, organizational behavior changes are not easy to implement. Healthcare facilities can provide roadmaps for other organizations on how to successfully navigate challenges. Hospitals that have changed their vending contracts or worked with vendors to promote the availability of healthier options provide examples of how institutions can establish policies and practices designed to support healthy food and beverage choices, and respond effectively to questions about choice, potential economic impact, and other concerns that often arise when healthy options are phased in. Many hospitals and healthcare organizations throughout the U.S. have already committed to offering healthier food and beverages in their facilities, including hospitals in California, Colorado, Florida, Illinois, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, New Jersey, New York, North Carolina, Pennsylvania, Washington, West Virginia, and Wisconsin, to name just a few. (See Food and Beverage Pledges for Hospitals and Healthcare Systems, another resource in this toolkit.)

A 2015 American Hospital Association survey found that 53% of hospitals had implemented some type of healthy beverage initiative or planned to do so. For example, among the sixteen public hospitals and 24 private hospitals that joined the New York City Healthy Hospital Initiative, 64% removed unhealthy foods and beverages from the entrance and checkout of the cafeteria; 43% reduced portion sizes of sugary drinks to 16 ounces or smaller; and 39% reduced sugary drinks to 25% of all beverages. And these initiatives are having an impact, as the University of California in San Francisco found. In 2015, the university eliminated sugary drink sales across all campus and medical center venues. Six months after the policy took effect, employees reduced their intake of sugary drinks by almost 50%, a reduction that persisted through 12 months. Reduced intake was especially pronounced among employees in the high body mass index (BMI) group, which reduced their intake by more than three times the amount compared to employees in the lean BMI category (588 mL versus 186 mL).
Conclusion

As healthcare providers, employers and anchor institutions, healthcare organizations hold a significant interest in the health of their employees, patients, and communities. In this key leadership role, they can help create healthier communities by modeling healthy food and beverage environments. Access to healthy food and beverage options is a challenge in many hospitals; however, this is changing. More hospitals have recognized they have a critical role to play and have taken steps to create healthier food and beverage environments. Public health experts agree that overconsumption of sugary drinks is one of the social norms that must be changed. All healthcare organizations should step up to answer the call.

Additional Resources

Global Green and Healthy Hospitals, Health Care Without Harm

Healthier Hospitals, Practice Greenhealth

Healthy Beverage Initiative, SugarScience, University of California San Francisco

Healthy Food in Health Care, Health Care Without Harm

Healthy Kansas Hospitals, Kansas Hospital Association

Make Hospital Food Healthy, Physicians Committee for Responsible Medicine (includes link to a Healthy Food in Health Care Toolkit and to the American Medical Association's model policy)

The other resources in this series can be found on the Public Health Law Center’s website at publichealthlawcenter.org. The Healthy Healthcare Toolkit includes:

• Beverage Policies & Drinks with Artificial Sweeteners
• Building Blocks for Success: Developing Healthy Beverage Policies & Initiatives
• Food & Beverage Pledges & Policies for Hospitals & Healthcare Systems
• Frequently Asked Questions about Healthy Beverage Initiatives
• Healthcare Can Lead the Way: Making the Healthy Choice the Easy Choice
• Healthy Beverage Hot Spots: Identifying & Utilizing the Institutional Access Points
• Healthy Beverage Policies, Healthy Bottom Lines
• Healthy Beverage Policies: Key Definitions & Sample Standards
• Sickly Sweet: Why Focus on Sugary Drinks?
• Thirsty for Health — Tap Water & Healthcare
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Endnotes


10 Sally Lawrence et al., The Food and Beverage Vending Environment in Health Care Facilities Participating in the Healthy Eating, Active Communities Program, 123 Pediatrics S287, S287 (2009), https://pediatrics.aappublications.org/content/pediatrics/123/Supplement_5/S287.full.pdf.


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23 Jessica L. McCurley et al., *Association of Worksite Food Purchases and Employees’ Overall Dietary Quality and Health*, 57 Am. J. Preventive Med. 87, 91 (2019).


29 Elissa S. Epel et al., *Association of a Workplace Sales Ban on Sugar-Sweetened Beverages With Employee Consumption of Sugar-Sweetened Beverages and Health*, 180 JAMA Internal Med. 9 (2020).