Food service changes, whether in vending machines, cafeterias, or other venues, come with the question: what will this mean for the bottom line?

Food service is an important revenue stream for many hospitals and there is a common misperception that healthy options will not sell as well as unhealthy ones. However, as more consumers recognize the connection between nutrition and health, many are changing the types of products they buy. Experiences from hospitals, schools, worksites, retail, and other settings have shown that consumers will opt for healthier options when they are
available. These experiences offer lessons for how to implement healthy beverage policies and initiatives without hurting the financial bottom line.

Consumers Want Less Sugar in Their Diets

Consumers increasingly want healthier food and beverage products. A 2018 survey of U.S. adults found that 60% held negative views about added sugar, and 77% said they were trying to limit or avoid sugar. Of those trying to limit sugar, nearly half were doing so by eliminating soft drinks. Consumers are changing their food buying habits because they increasingly recognize the link between diet and health. More than 40% of adults in the U.S. are actively trying to lose weight, most commonly through diet changes. Reducing sugar intake is the top strategy because many Americans view added sugar as the most likely cause of weight gain. The most common way consumers are reducing sugar intake is by drinking water instead of caloric beverages. In 2019, some 70% of Americans cited bottled water as among their most preferred non-alcoholic beverage, and 82% said they drink water at work. Industry surveys have shown that employees rate water as the most important (34%) beverage choice in the workplace, ahead of unsweetened coffee (25%) and well ahead of soda/iced teas (16%), juice (13%) and sweetened coffee drinks (6%). This may explain why over half of employed U.S. adults support worksite policies that make water more accessible.

Healthy Beverage Initiatives Can Lead to Healthy Sales

Hospital experiences with healthy beverage policies and initiatives show that unhealthy products can be reduced or removed without negatively affecting overall revenue. For example, after Fairview Hospital in Massachusetts removed sugary drinks from its cafeteria, catering, and vending machines, it observed “no noticeable change in sales revenue.” Many hospitals and organizations that have eliminated or reduced sugary drinks have reported the common experience that although revenue dips initially, it rebounds over time. In some instances, revenue rates not only rebound but exceed pre-initiative levels. For example, Nationwide Children’s Hospital in Columbus, Ohio removed sugary drinks from all food establishments within the hospital in 2011. After one year of implementation, the hospital observed a nearly 3% increase in total annual beverage sales, including sales revenue increases for milk (19% for all types), 100% fruit juice (22%), coffee (17%), and water (7%). Adopting a promotional approach, another children’s hospital in San Diego implemented a Rethink Your Drink campaign and observed a 36% decrease in sales of sugary drinks and a 241% increase in monthly sales of healthier beverages, such as water and 100% fruit juice.
Successful healthy food and beverage policies and initiatives also use marketing strategies to nudge consumers toward healthier purchases, which can help to support sales growth.\textsuperscript{14} For example, after a menu redesign in the Harvard School of Public Health cafeteria where healthier entrees and side dishes were added and existing, unhealthy entrees and side dishes were offered less frequently, sales remained consistent.\textsuperscript{15} Pricing strategies can also promote healthier product sales.\textsuperscript{16} In another project involving two hospital cafeterias, researchers created a 35\% price differential between healthy and unhealthy food options and added point-of-sale signage to highlight taste, cost, and health benefits. After nine months, sales of healthy options increased up to seven-fold, and cafeteria gross sales increased between 5\% and 8\%.\textsuperscript{17}

Marketing strategies also can be used with vending machine products to boost healthier purchases and maintain revenue. A 2016 review found that seven of ten vending machine interventions that used price changes, increased the proportion of healthier items, or changed marketing or promotions resulted in more healthy product purchases without negatively impacting revenue.\textsuperscript{18} For example, one study of a vending machine initiative in bus garages found...
that when healthy products were made more available through a 50% healthy standard, and their prices were reduced by 10%, sales of healthy items increased up to 42% over 18 months. Further, average prices for healthy items were 31% lower than the average prices for non-healthy items.\textsuperscript{19} Similarly, a 2014 evaluation of the “100% Healthy Food in Park Vending Machines” program implemented in the Chicago Parks District found that 88% of park goers reacted positively and average monthly sales per machine increased from $84 to $371 in the span of 15 months.\textsuperscript{20} And following implementation of healthy standards in 250 vending machines located on property owned by the City of Philadelphia, sales volume increased for healthy items and decreased for unhealthy items, while total beverage sales volume remained the same.\textsuperscript{21}

**Healthy Beverage Initiatives Can Promote Healthcare Savings**

Taking a long-term perspective, healthy beverage policies and initiatives provide several upsides. They can help address rising rates of diet-related chronic diseases, which are costly for employers. This is particularly relevant for hospitals as research has found that healthcare workers are less healthy and accrue higher healthcare costs than the general U.S. workforce.\textsuperscript{22} In fact, healthcare employees and their dependents are admitted for chronic illness 18% more often than the general workforce, and healthcare costs for hospital employees have been reported to be 10% higher than the average cost for U.S. workers.\textsuperscript{23} Specifically, compared to the average U.S. worker, healthcare workers and their dependents were:

- 32% more likely to be admitted for congestive heart failure,
- 17% more likely to be admitted for diabetes,
- 20% more likely to be admitted for hypertension, and
- 31% more likely to be admitted for overweight/obesity.\textsuperscript{24}

These diet-related chronic diseases, many of which are linked to sugary drink consumption, are key drivers of recent increases in U.S. healthcare spending,\textsuperscript{25} and prevention efforts can help contain costs. One study found 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.\textsuperscript{26}

**Employees Value Healthy and Socially Responsible Workplaces**

Healthy beverage policies and initiatives may also help recruit and retain prospective employees. By 2025, 75% of the workforce will be millennials.\textsuperscript{27} For this generation, an
organization’s social and environmental practices are key factors when seeking employment. In fact, three out of four millennials consider a company’s track record on social and environmental issues when deciding where to work, and two-thirds will decline a job from a company if it does not have strong corporate social responsibility practices. Some 93% of millennials value a modern/comfortable/healthy workplace. Other research has found that when employees are satisfied with their work environment, they feel more productive and are more likely to stay with their current employer. More than a quarter of employees expressly identify availability of healthy food options as being important to them for job satisfaction.29

A healthy beverage program can also be part of a larger environmental initiative, which can bring additional positive financial impact. Many consumers consider sustainability and sourcing when making food purchases, and environmental responsibility is important to a large segment of employees. According to a survey by the Society for Human Resource Management, 44% of human resource professionals and 36% of employees believed environmentally responsible programs improved employee morale, and two-thirds of employees believed such programs created a stronger public image for their company. Therefore, a healthy beverage initiative that includes environmentally-responsible practices not only can promote better physical health for employees, but also can help boost morale. Improved morale can lead to increased employee retention rates — 61 percent of employees in organizations implementing environmentally-friendly practices reported that they are “very likely” or “likely” to stay with their current organization because of their organization’s environmentally responsible programs. Similarly, more than 80% of millennials say they would be more loyal to a company that helps them contribute to social and environmental issues.

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**Boost Health by Going “Green”**

Healthy beverage policies and initiatives that support healthy selections dispensed in bulk (coffee, tea, juice, and water stations) can eliminate the need to purchase single use bottled beverages, which are typically more expensive and bring detrimental environmental consequences. Single use bottled beverages are resource-intensive to create, pack, and ship, and create substantial waste. Use and promotion of refillable containers for healthier beverages can help reduce energy consumption and even create new revenue opportunities, such as by selling BPA-free reusable mugs for water refills. Many hospitals and other institutions are promoting tap water as the best alternative to sugary drinks by installing filtered water stations and infused water stations.
Conclusion

Food service and vending machines can be important revenue streams for many hospitals, and changes to food and beverage offerings can cause anxiety about potential financial consequences. Fortunately, market data shows that more consumers want healthy foods and beverages, and lessons from cafeteria and vending machine interventions show that consumers will purchase healthier products when they are available. Selling healthier products also makes long-term business sense, helping to curb rising health care costs associated with diet-related chronic diseases. Healthy beverage policies that promote tap water and other environmentally-responsible practices can signal social responsibility, which a growing segment of the workforce desires. The bottom line is that healthy beverage policies and initiatives are not only good for employee and community health, but they also can contribute positively to healthcare’s financial bottom line.
Additional Resources

*Hays Medical Center (Hays, Kansas) Case Study*, Healthy Kansas Hospitals

*Clara Barton Hospital (Hoisington, Kansas) Case Study*, Healthy Kansas Hospitals

*Best Practices for Financial Sustainability of Healthy Food Service Guidelines in Hospital Cafeterias*, in Preventing Chronic Disease, Vol. 15 (May 17, 2018)

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**

This publication was prepared by the Public Health Law Center at Mitchell Hamline School of Law, in St. Paul, Minnesota. This version was made possible with funding from the American Cancer Society and builds from a previous version developed in partnership with Health Care Without Harm and supported by funding from Blue Cross and Blue Shield of Minnesota and the Minnesota Cancer Alliance, using funding from the Centers for Disease Control and Prevention (CDC). It was informed by the Boston Public Health Commission’s Healthy Beverage Toolkit, which was used with permission. The contents are solely the responsibility of the authors and do not necessarily represent the official views of the CDC or those of any other person. The Center also acknowledges the valuable contributions of its Research Assistants, including Anusha Garimella and Nicole Dailey, who provided research and writing support for this publication, and thanks Kristen Sullivan, Director, Nutrition and Physical Activity at the American Cancer Society, for her review and comments on drafts of this publication.

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Endnotes


8 Emily Jed, Harris Survey Details: At-Work Beverage Consumption Trends, VENDING TIMES, (Jul. 20, 2009). See also, Beverages At Work: Now More Than Ever!, VENDING MARKETWATCH (Jul. 22, 2014), https://www.vendingmarketwatch.com/home/article/10256876/beverages-at-work-now-more-than-ever (showing that increase in bottled water consumption at work outpaced all other beverages in the previous year).


13 Phyllis Hartigan et al., Rethink Your Drink: Reducing Sugar-Sweetened Beverage Sales in a Children’s Hospital, 18 HEALTH PROMOTION PRAC. 238, 243 (2017).


20 Maryann Mason, et al., *Working with Community Partners to Implement and Evaluate the Chicago Park District’s 100% Healthier Snack Vending Initiative*, 11 Preventing Chronic Disease 1, 2-4 (2014).


