Delaware Uses Vending Machines to Reduce Consumption of Sugar-Sweetened Beverages

The Role of Local Health Departments in Chronic Disease Prevention

Local health departments (LHDs) play an important role in developing healthy communities. LHDs serve as the authorities on public health, providing decision-makers from all sectors with strategic guidance on local health data and science-proven interventions.

The Big Cities Chronic Disease Community of Practice

Formed in 2007, the Big Cities Chronic Disease Community of Practice (BC-COP) comprises local health officials or senior-level chronic disease programmatic staff from LHDs representing the largest cities and metropolitan areas in the United States. The goals of the BC-COP are to identify common priorities related to healthy eating and active living, discuss evidence-based policy, system, and environment strategies, and share lessons learned during implementation. Peer sharing and support takes place through in-person meetings, webinars, phone calls, and resource sharing. The BC-COP guides the production of resources that are helpful to members and other communities seeking similar change. For example, The Role of Local Health Departments in Promoting Healthy Beverages: Changing Procurement Standards to Increase Access to Healthier Beverages, a NACCHO issue brief published in 2013, provided background on the issue described in this story, a rationale for the strategy, examples from the field, and useful resources.

Overview

To decrease consumption of sugar-sweetened beverages (SSBs) among individuals receiving social services, the Delaware Department of Public Health collaborated with the University of Delaware, a vending machine operator, and the Blind Vendor’s Association to develop and test the One Less Challenge, a point-of-purchase campaign. During the pilot project, consumers purchased more no- or low-calorie beverages and vendors maintained sales. Because of the campaign’s success, vending machine operators are willing to collaborate with the state government to identify voluntary ways to support healthy lifestyle behaviors.

Challenge

One of the goals of Delaware’s current state health improvement plan is to tackle chronic disease and obesity by increasing healthy lifestyle behaviors such as healthy eating. Over 67% of Delaware’s adult population is either overweight or obese. Overweight and obesity are significant risk factors for several types of cancer, cardiovascular disease, and diabetes. Consumption of SSBs is one of the factors that contributes to weight issues. The Centers for Disease Control and Prevention recommends promoting access to and consumption of non-SSBs to reduce SSB consumption among both children and adults.

While many public health professionals are keen to see the public curb consumption of SSBs as part of a healthy lifestyle, creating formal policies and regulations is not always an easy option. Industry and individuals alike are sometimes resistant to government regulation of business and behaviors perceived as personal choice. For example, the Randolph Shepard Act is a federal law that mandates a priority to blind persons to operate vending facilities on federal property. As beneficiaries of this policy, vending machine operators are concerned that they will lose revenue if sales of SSBs are banned. Additionally, many consumers are put off by messaging that demonizes a product with which they have strong positive emotional associations or that induces shame by framing SSB consumption as a “bad” choice.

The Delaware Department of Public Health recognized an opportunity to build relationships with members of the beverage industry to answer a simple question: If given more beverage options in vending machines and prompted to replace one SSB a day with a healthier choice, will people shift their purchasing behaviors?
Solution
The One Less Challenge was created in 2014 with support from the Governor’s Council on Health Promotion and Disease Prevention and funding from a state block grant. The initiative aims to build collaborative relationships between the public and private sectors to create voluntary solutions to improving health that do not require legislation, regulations, or policy implementation and enforcement.

The Delaware Department of Public Health serves as the convener and funder for the effort. The University of Delaware designed and evaluated the campaign. Other partners include Canteen (a vending machine operator), the Blind Vendor’s Association, and the Delaware Division of the Visually Impaired. The partners laid a foundation for the work by signing standards of conduct and cooperation and clarifying the goals of the project. They then shared information (e.g., health data, operational procedures, market details, consumption data) to identify opportunities to test the idea.

The 2015 pilot test took place in approximately 20 state government social service centers that served high-risk clients. The health department collaborated with the Blind Vendor’s Association to create an inventory for the beverage vending machines in these locations that included 50% full-calorie and 50% no- or low-calorie products. A communications firm created point-of-purchase messaging and visual prompts (e.g., posters, clings, floor pull-ups) based on the stages-of-change model. The positive, non-judgmental, evidence-based messaging, which was tested with focus groups, encouraged consumers to make a small change: replace one full-calorie beverage with a no- or low-calorie beverage each day.

Results
A comparison of 2014 and 2015 vending sales data found no significant sales differences, but did find very significant differences in the composition of those sales. Consumers chose more no- or low-calorie beverages during and following the campaign period. Additionally, the vendors experienced no loss in revenue, which made them more amenable to experimentation and change. Employees at the state service centers were skeptical about the program at first but eventually came to support it. In fact, many employees reported changes in their beverage consumption outside of the workplace.

While the Governor’s Council no longer exists due to a change in administration, support for the initiative remains. The One Less Challenge was expanded to the Delaware Department of Transportation buildings across the state to test it among employees.

Cross-Sectoral Awareness
Prior to this partnership, the public and private stakeholders involved on Delaware’s healthy lifestyle behaviors related to consumption of SSB had not worked together formally or voluntarily. Trust in public-private partnerships takes time to develop as each entity has different cultures and perceptions. It was necessary to understand the problem and the solutions from each other’s perspective to fully appreciate motivations and the benefits and harms of maintaining the status quo versus effecting change. For example, once vending machine operators understood that they were not going to lose revenue, they were amenable to experimentation.

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The health department found the Big Cities collaboration calls most valuable as a safe space to explore ideas and alternatives, share information, and understand how others approach the work.

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