

Healthy Vending Policies: A Youth-Involved Initiative to Improve Healthy Eating

Through their Health Equity in Prevention (HEiP) initiative, the Center for Prevention at Blue Cross and Blue Shield of Minnesota (the Center) awarded contracts to 13 organizations working to implement policy, systems, and environmental changes to support health and advance health equity. The Promising Practices series highlights successful strategies used by these organizations and important lessons learned that can be used by other organizations to inform their work.

NorthPoint Health and Wellness (NorthPoint) is in North Minneapolis, a predominantly African American neighborhood with a rich cultural, social, and political history. NorthPoint is committed to strengthening the community and improving the lives of North Minneapolis residents in a wide variety of ways. For instance, its youth group, Breathe Free North (BFN), was heavily involved in work that ultimately restricted the sales of flavored tobacco products, reducing youth access to tobacco products. A consistent theme that runs through everything NorthPoint does is a deep commitment to collaborating closely with local partners and community members, especially youth. This commitment is clear in the healthy vending work described in this summary.

Development and implementation of healthy vending policies

NorthPoint's interest in healthy vending policies began as an offshoot of Breathe Free North (BFN), their youth education and advocacy initiative to reduce youth access to tobacco products. Several NorthPoint staff noticed that spaces that hosted BFN events and other places where youth come together had vending machines filled with unhealthy food and beverages.¹ Staff and youth also noted that corner stores near these places sold similar, unhealthy food and beverages.

Why healthy food options are important to health

A diet high in unhealthy food and beverages can raise one's risk for obesity and chronic disease, like diabetes, cardiovascular disease, hypertension, diabetes, and certain cancers. In Minnesota, the latest statistics show that the overall obesity rate for adults is at 28 percent; for African Americans, the rate is 30 percent (Trust for America's Health & Robert Wood Johnson Foundation, 2017). High rates of obesity might be due in part to low access to healthy foods (James, 2004).

¹ Unhealthy food and beverages are low in nutritional value, but high in fat, saturated fat, sodium, and/or added sugars (Grech & Allman-Farinelli, 2015).

Until recently, North Minneapolis had many corner stores but only two grocery stores serving a community of close to 70,000 people (Kamal, 2017). In recent years, new nonprofits and social enterprises, like Appetite for Change (<https://appetiteforchangemn.org/>) and the North Market (<http://mynorthmarket.org/>), have increased access to healthy food options and local awareness of healthy eating.

After recognizing the limited healthy vending options, NorthPoint staff and youth members embarked on what became a two and a half year journey to change the contents of vending machines in the neighborhood. Initially, staff planned to focus on persuading leaders of organizations that hosted youth programming and community meeting spaces to change vending policies within their organization. However, as the outreach began, they learned that in many organizations, contracts with vending companies were established years - sometimes decades – ago. Often, current employees had no regular involvement with companies in making decisions on what vending options should be made available. As NorthPoint staff and youth members began to take an inventory of options available in each vending machine, they began to see that a few companies owned and managed many machines in different places. As a result, NorthPoint modified its approach to work with vending companies directly as a more efficient way of changing vending machines within the community.

Considerable time and effort was needed before any vending machine policy was implemented.

NorthPoint staff and youth members took notes on where to find machines and which companies owned them. They took pictures of each machine to document what snacks and beverages were sold and compiled pictures of machines that were already selling healthier options to show to vending companies. They then identified the concerns that vending companies had about making changes, explored these issues, and developed arguments on how to persuade vending companies to include more healthy options. This process included identifying the person in each company responsible for making decisions on vending machines' contents, and, with persistence, met in-person with these company representatives. In these meetings, youth and staff asked companies to adopt written policies that were based on vending policy recommendations developed by the City of Minneapolis.

Companies were asked to adopt a policy that would result in at least 50 percent of all beverages and snacks in vending machines meeting healthier nutritional standards. The standards described in the healthy vending policy specified:

- 50 percent of all beverages be water, nonfat or 1% low-fat milk, or juice
- Flavored milks and juices adhere to further restrictions on how much sugars and caloric sweeteners they can contain
- Removal of juices with less than 50% juice
- Beverages, like diet sodas, that do not fit into the healthy category still do not exceed 100 calories and/or 12 ounces
- 50 percent of snack items cannot exceed 250 calories or have trans-fat
- Removal of all snacks, except nuts, with more than 35 percent of calories from fat

In all, five of the eight companies that NorthPoint youth and staff met with signed off on written policies. While NorthPoint's focus was on Minneapolis, some companies applied these policies to their whole vending system. NorthPoint did not carry out a formal evaluation to measure changes in vending machine content and sales after these policies were adopted. However, youth still periodically checked the contents of machines. After the policies were adopted, they found out that 62 machines in North Minneapolis had healthier options compared to before, although some vending machines did not fully meet the policy guidelines.

In their follow-up observations, youth also saw that after making initial changes, vending contents in a few machines went back to their original options, suggesting the importance of constant monitoring. Studies of similar initiatives also show that it is not enough for companies to adopt policies to change the contents of their vending machines. They also have to retrain and monitor all staff in packing and distribution to make sure that people do not accidentally revert back to old, unhealthy guidelines (French et al., 2010; Mason, 2014).

Alignment with best practices to increase healthy eating

Some of the steps taken by NorthPoint align closely with best practices already shown to increase access to healthy food. Healthy vending machines policies have begun shifting from focusing exclusively on workplaces and schools to including other places, like parks, where youth come together after school and on weekends (Mason, 2014). Like NorthPoint, other effective interventions change vending machine contents by negotiating directly with vending companies (Mason, 2014; Garcia, Garney, Primm, & McLeroy, 2017; French et al., 2010; Gorton, Carter, Cvjetan, & Mhurchu, 2010).

Healthy vending policies is one of multiple strategies used by NorthPoint to support healthy eating. In addition to changing vending machine policies, NorthPoint also provides nutrition education and creates opportunities for youth to try healthier options. For example, staff regularly offer new foods at standing youth meetings and events, which allows youth to try new things, but in their own time and in spaces where youth already feel comfortable. Recent studies have identified taste-testing as a promising strategy to increase sales of healthy foods (French et al., 2010; Liberato, Bailie, & Brimblecombe, 2014; Pharis, Colby, Wagner, & Mallya, 2018). NorthPoint staff felt youth are willing to try new foods and consider new information because of the trusting relationships that have developed over time between NorthPoint staff and youth BFN members. It is through this relationship that staff have developed effective ways to talk with youth about healthy eating. It is important that messages around healthy eating reflect the priorities and interests of the community (Grivois-Shah et al., 2017; Gorton et al., 2010; Mason, 2014; Bergen & Yeh, 2006; Hua et al., 2017). Studies suggest that messages focusing on the benefits of adopting healthier behaviors are more effective than messages focusing on the harms of current behavior (Gallagher & Updegraff, 2011). Positive framing can also help organizations avoid messages that could stigmatize or promote stereotypes about their communities when encouraging healthy behaviors.

Potential impacts of healthy vending policies

The potential impact of changes to vending machines on eating behavior and health is hard to predict but some studies suggest positive changes can occur. It is difficult to assess whether changes in vending machine options result in meaningful improvements in health. NorthPoint staff only have anecdotal evidence that more people bought healthier options, like pistachios, around a year after vending machines changed. The task of assessing whether increasing healthy options in vending machines decreased unhealthy eating behaviors is also difficult for researchers. Most studies last only a year or two, which may be too soon to see a change behavior as complex as food choice. In addition, studies tend to focus on sales data as a way to measure consumption of healthy or unhealthy food. When this data source is used, it is not possible to determine whether any changes in sales are due to people changing their consumption habits or that a different group of people, already consuming healthier options, begins to purchase snacks and beverages more often.

Published studies exploring how vending machines influence consumption of healthy foods have had mixed results (Fiske & Cullen, 2004; Datar & Nicosia, 2012). Some studies have showed significant changes in the purchase of healthy foods when vending machine items lower in calories, fat, sodium, and sugar are available (Kocken et al., 2012; Grivois-Shah et al., 2017). There are also case studies in New Zealand, Philadelphia, and Chicago that show changing vending machines by itself or combined with marketing and mild price controls (i.e., keeping unhealthy and healthy items the same price) can also incentivize people to purchase healthier food options (Gorton et al., 2010; Pharis et al., 2018; Mason, 2014).

Lessons learned

Concerns that companies have about potential revenue loss need to be taken seriously. Loss of revenue affects both vending companies and community meeting spaces, which often charge a rental fee each year or receive a percentage of the sales. NorthPoint responded to these concerns with arguments based on community members' real-life experiences and health risks. Youth members, who are the primary consumers of food from vending machines, told company representatives that they wanted to try healthier options, and there is demand for these options among their peers. Staff members also presented information on health disparities, like statistics on diabetes in the neighborhood. In this way, companies understood how the lack of healthy choices in their machines hurt their consumers and the greater community.

Policy change requires time and persistence. NorthPoint found that it took considerable time for staff and youth members to initially inventory the location and contents of all vending machines. They found that even after companies, particularly larger ones, verbally agreed to adopt a healthy vending policy internal processes with many legal steps needed to be followed before a written policy could be adopted. Finally, NorthPoint staff needed to take time to learn about nutrition, understand the perceptions youth and community members had about healthy foods, and also identify points of resistance. Although no

formal survey was carried out, NorthPoint staff anecdotally mentioned some points of resistance that other organizations might also encounter. These points included some community members talking about how they felt like they were being “micromanaged,” or youth members not being able to understand how their current food habits can lead to long-term health implications. To respond to this, leaders talked to skeptical community members and met them halfway. For instance, they agreed to not remove all unhealthy options in vending machines and, instead, follow community members’ suggestion of posting nutritional information that gives people the choice to eat healthier (Garcia et al., 2017). In NorthPoint’s case, staff convinced youth members to change their eating habits by connecting tangible, physical symptoms to their eating habits (e.g., the fatigue after a sugar high) to show that their health is affected even if they are skinny.

In addition, the following tips, based on NorthPoint’s experience and studies from similar initiatives, can help organizations successfully design and implement healthy vending policies:

- **Continuously monitor machines and communicate with companies even after policy is signed.** NorthPoint and other research studies found it was quite common for vending machines to revert to their original state of carrying mostly unhealthy options even after companies signed policies (French et al., 2010; Mason, 2014). This is not always done with intention. For example, one study found that drivers and staff lacked the training to select healthier items for specific machines instead of the usual options (Mason, 2014). Organizations have to continuously monitor machines and be in communication with companies to ensure that all company employees are complying with the policy.
- **Talk to vending companies on how to place healthy options in vending machines.** Some studies have examined the impact of placing healthier items in vending machines at eye level and putting sugary products, like sodas, on the bottom row. Changing how items are displayed is an effective way to persuade “undecided buyers,” or those who did not have a specific product in mind, to buy healthier options (Viana et al., 2018).
- **Encourage corner stores to include more healthy options.** The positive impacts healthier vending machines have on increasing sales of healthier items can be offset when unhealthy foods are available in nearby stores (Kocken et al., 2012). Organizations and institutions can work closely with corner stores and stores serving food to increase their healthy options. In that way, community members will have more choices and access to healthy foods at whatever settings they choose to buy snacks and beverages.
- **Consider organizational strategies to encourage healthier food habits to complement changes in vending machines and nutrition education.** Offering healthy options in meetings is one way to reinforce healthy choices.

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