

Beverage Availability in Food Stores Nationwide

This brief describes the availability of sugar-sweetened beverages and healthy beverages in 5,922 food stores located in a nationally representative sample of communities where students attending public middle and high schools live. Trained staff used validated instruments to collect data from food stores, including supermarkets, grocery stores, convenience stores, as well as drug and dollar stores, in 308 communities during the spring and summer of 2010 and 2011.

This study shows that the majority of food stores offer water and a vast array of sugar-sweetened beverages, while low-fat and fat-free milk are much less available. It also finds that beverage availability varies by the predominant race and ethnicity of the community. Some healthier beverages are less available in predominately Black, predominately Latino, and racially diverse communities than in predominately White communities.

Introduction

Consumption of sugar-sweetened beverages (SSBs), including regular soda, sweetened fruit drinks, sports drinks, and sweetened teas, has been associated with weight gain, obesity, and increased risk for type 2 diabetes.^{1,2} SSBs are the largest contributor of added sugars and calories in the diets of children and adolescents, providing on average 45 percent to 50 percent of added sugars and 173 calories per day.^{3,4} Consumption of healthier beverages, such as low-fat (1%) or fat-free milk without added sugars has been consistently low over the past few decades.^{5,6}

Research has demonstrated differences in beverage consumption patterns among racial and ethnic groups.⁵⁻⁷ For example, in the last two decades, consumption of fruit drinks and soft drinks among 6- to 11-year-olds increased more among non-Hispanic Black children than among Hispanic and non-Hispanic White children.⁵ National data also show that significantly fewer non-Hispanic Black and Hispanic youths ages 2 to 19 reported low-fat milk as the type of milk they usually consume than did non-Hispanic White youths.⁶

Leading health experts and government agencies recommend a reduction in Americans' consumption of added sugar, particularly from SSBs.^{3,8-10} Water, low-fat (1%) and fat-free milk have been promoted as healthier alternatives for both adults and children older than age 2.^{3,10} In order for these

recommendations to be achievable, families and children must have access to healthy beverages in their communities' retail food outlets. This brief assesses the availability of various SSBs and healthy beverages in food stores located in a national sample of communities. It also examines differential availability in communities by race and ethnicity.

Key Findings

SSBs were present in the vast majority of stores and were far more available than low-fat and fat-free milk (see Figure 1).

- The vast majority of food stores (≥82%) carried every type of SSB that was included in this study.
- Three-quarters or more of all food stores had higher-fat milk (whole and/or 2% milk) available; fewer than half of stores offered low-fat (1%) or fat-free milk. This latter finding differed substantially by store type. While 99 percent of supermarkets and 64 percent of grocery stores carried low-fat and/or fat-free milk, only 40 percent of convenience, drug, and other limited service stores carried these products (data not shown).
- Nearly all food stores (97%) carried plain, unsweetened bottled water.

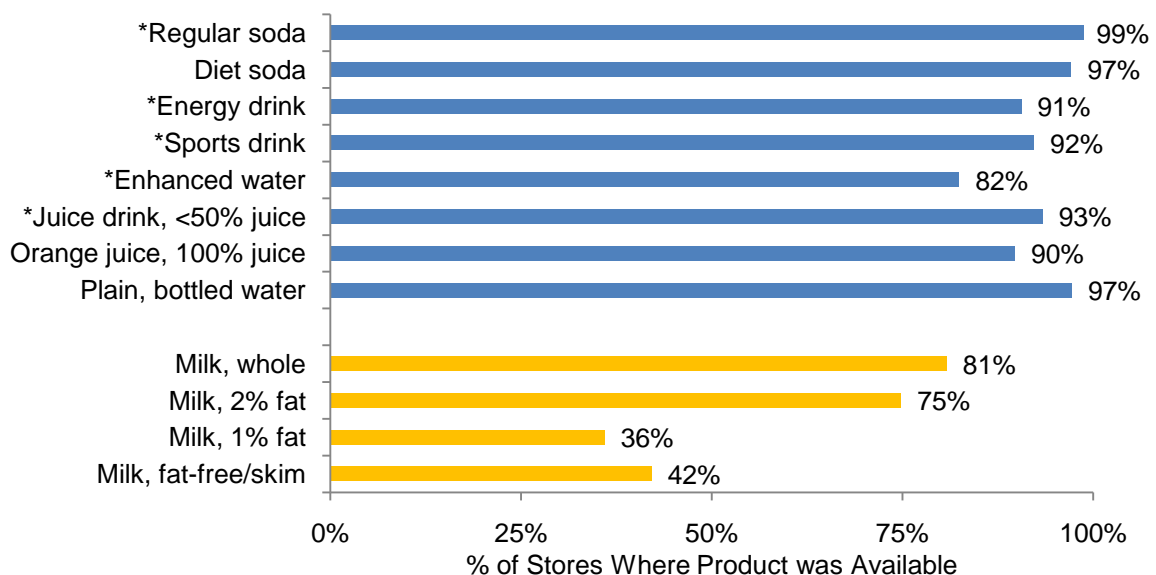
The availability of milk types varied considerably by race and ethnicity (see Figure 2).

- Reduced-fat (2%) milk was significantly more available in stores that were located in predominately White communities than in predominately Black and diverse communities. Further, stores located in predominately Black communities were significantly less likely to carry 2% milk than stores located in all other communities.
- Low-fat (1%) milk was significantly more available in stores located in predominately White communities than in predominately Black and Latino communities.
- Fat-free milk was also significantly more available in stores located in predominately White communities and significantly less available in stores located in predominantly Black communities.

While the availability of juice beverages varied by race and ethnicity, the availability of regular soda did not (see Figure 3).

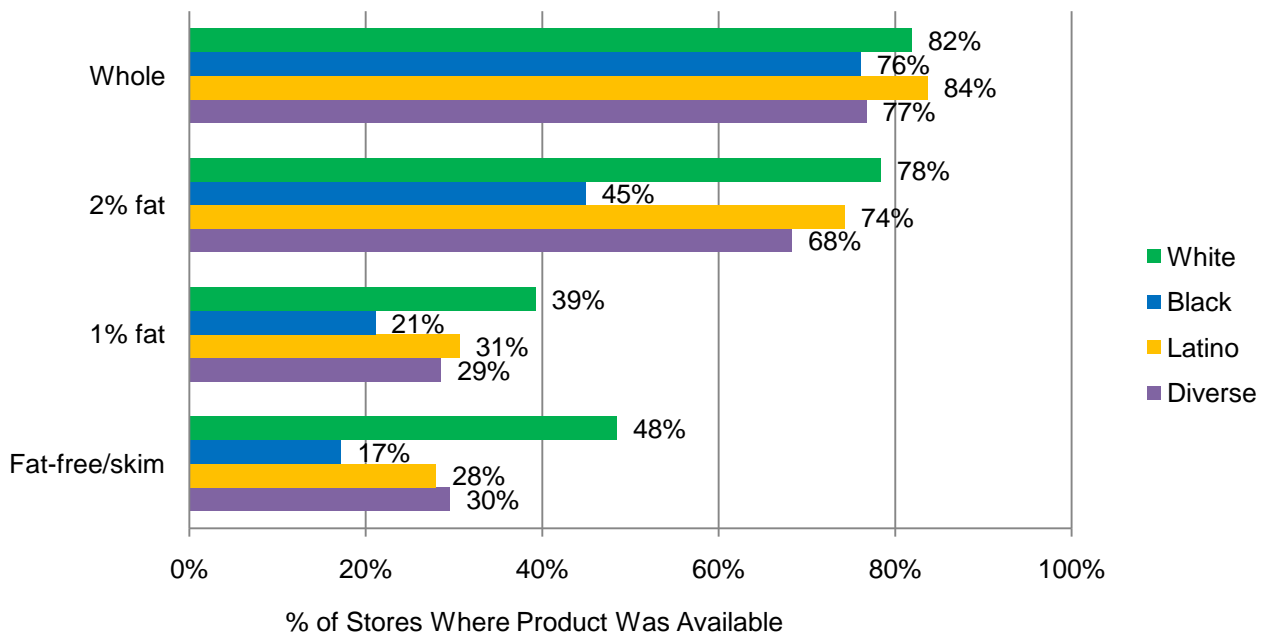
- Sugar-sweetened juice drinks containing less than 50 percent juice were significantly more available in stores located in predominately Black communities than in predominately White, predominately Latino, and diverse communities.
- Orange juice (with 100% juice) was significantly more available in stores that were located in predominately Black communities compared to predominately Latino communities.

Figure 1: Availability of Various Beverages in Food Stores, 2010 & 2011



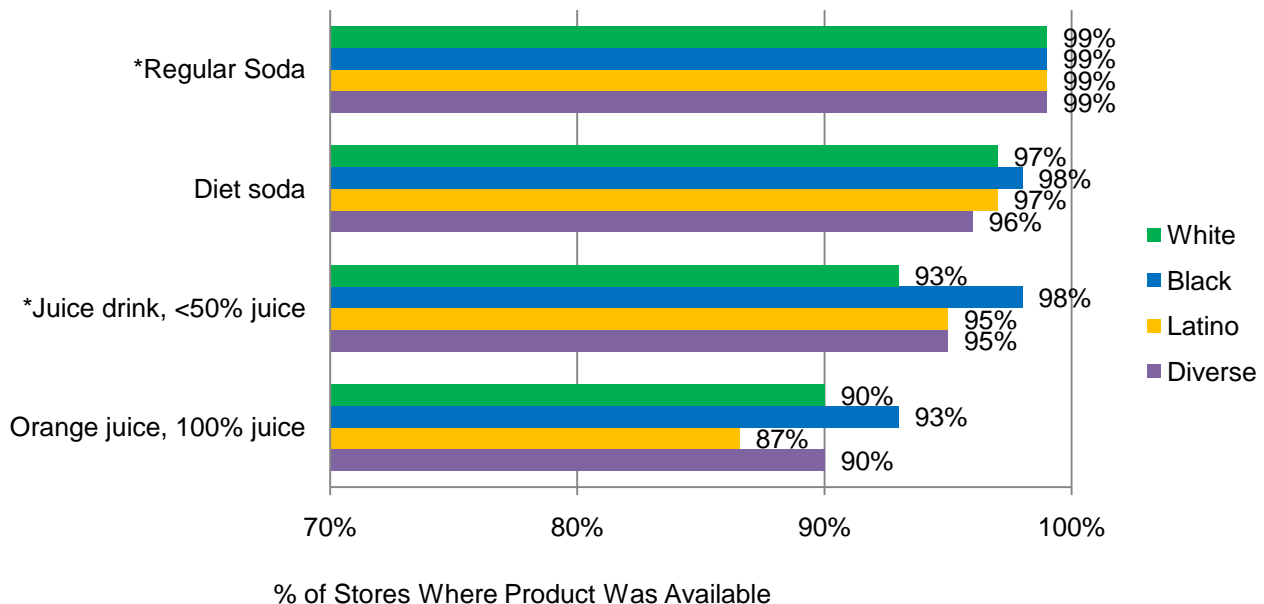
* Contains added caloric sweetener, such as sugar or corn syrup

Figure 2: Availability of Milk in Food Stores, by Race and Ethnicity, 2010 & 2011



The following comparisons are significantly different at $p \leq 0.05$:
 Whole - White vs. Black; White vs. Diverse; Black vs. Latino; Latino vs. Diverse
 2% fat - White vs. Black; White vs. Diverse; Black vs. Latino; Black vs. Diverse
 1% fat - White vs. Black; White vs. Latino
 Fat-free/skim - White vs. Black; White vs. Latino; White vs. Diverse; Black vs. Latino; Black vs. Diverse

Figure 3: Availability of Soda, Juice, and Juice Drinks in Food Stores, by Race and Ethnicity, 2010 & 2011



The following comparisons are significantly different at $p \leq 0.05$:
 Diet soda - Black vs. Diverse
 Juice drink, <50% juice - White vs. Black; Black vs. Latino; Black vs. Diverse
 Orange juice, 100% juice - Black vs. Latino

*Contains added caloric sweetener, such as sugar or corn syrup

Conclusions and Policy Implications

The vast majority of food stores in this study had a wide array of SSBs available, and unsweetened bottled water was available in 97 percent of stores. Conversely, fat-free and 1% milk were less available than all types of SSBs. The availability of fat-free, 1%, and 2% milk varied by the predominant race and ethnicity of the community. These findings are similar to previous research which found that low-fat and fat-free milk were less available, particularly in smaller, convenience stores¹¹⁻¹³ and in communities with a greater percentage of Black and Latino residents.¹⁴⁻¹⁷ Stores in predominantly Black communities were more likely to carry sugar-sweetened juice drinks than stores located in other communities. Given the high rates of childhood obesity among predominately Black and predominately Latino communities, these findings are of serious concern. Additional research is needed to examine how differences in product availability by store type contribute to overall access to healthy beverages across communities.

While there have been recent efforts to limit the availability of less-healthy beverages and increase access to healthier options in our nation's schools,¹⁸ less activity has focused on retail stores. Recent data show that among Americans age 2 and older, the vast majority (92%) of SSBs consumed in the home were purchased in stores.¹⁹ Further, SSBs consumed away from home were most often obtained from stores (43%); fewer were purchased from restaurants (35.5%) or obtained from schools or day care settings (1.4%).

There are many policy and programmatic approaches that may help increase residents' access to healthy foods and beverages in food stores. Local governments can, for example, offer tax incentives, zoning requirement waivers, expedited permitting, low-interest loans or grants, or other incentives that support the purchase of new equipment and other infrastructure improvements to convenience stores and bodegas that agree to stock a certain amount of healthy and affordable food and beverage options.^{20,21} Licensing is another strategy that can help improve the nutritional quality of the products offered in a food retail environment.²² Through this type of regulatory policy, a community may require all eligible food stores to carry a minimum amount of staple food and beverage options and perishable goods (e.g.,

dairy and fresh produce) in order to receive a license, thus increasing amount of shelf space for healthy food and beverage options relative to products that are high in sugars, fat, and/or sodium. Finally, program interventions have, among other things, offered training and technical assistance to small store owners on the stocking of healthy, culturally-appropriate foods, and have also provided marketing materials and suggestions on the placement and promotion of healthier items.^{23, 24}



Study Overview

The findings in this brief are based on data from the Bridging the Gap Community Obesity Measures Project (BTG-COMP), an ongoing, large-scale effort conducted by the Bridging the Gap research team. BTG-COMP identifies local policy and environmental factors that are likely to be important determinants of healthy eating, physical activity and obesity among children and adolescents. BTG-COMP collects, analyzes and shares data about local policies and environmental characteristics relevant to fast-food restaurants, food stores, parks, physical activity facilities, school grounds and street segments in a nationally representative sample of communities where public school students live.

For this study, communities around schools were classified into four mutually exclusive and exhaustive subgroups according to the proportion of White, Black, and Latino population. Each community was classified as one of the following: majority White ($\geq 66\%$ White residents), majority Black ($\geq 50\%$ Black residents), majority Latino ($\geq 50\%$ Latino residents), or diverse (no clear majority of White, Black, or Latino residents). Observational data were collected in a total of 5,922 sampled food stores, including 636 supermarkets, 622 grocery stores, and 4,664 limited service stores (e.g., convenience stores, drug stores, and dollar stores).

Suggested Citation

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www.bridgingthegapresearch.org

About Bridging the Gap

Bridging the Gap is a nationally recognized research program of the Robert Wood Johnson Foundation dedicated to improving the understanding of how policies and environmental factors influence diet, physical activity and obesity among youth, as well as youth tobacco use. The program identifies and tracks information at the state, community and school levels; measures change over time; and shares findings that will help advance effective solutions for reversing the childhood obesity epidemic and preventing young people from smoking. Bridging the Gap is a joint project of the University of Illinois at Chicago's Institute for Health Research and Policy and the University of Michigan's Institute for Social Research. For more information, visit www.bridgingthegapresearch.org.

Endnotes

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