

# Food Prices Can be Effective in Promoting Sale & Consumption of Healthy Foods & Beverages

## Healthy Eating Research

Building evidence to prevent childhood obesity

Issue Brief, November 2017

### Introduction

Many studies have looked at how changing price can affect stocking, sales, purchase, and consumption of a wide variety of foods. Food prices can be changed in several ways, including taxes and price incentives such as subsidies, coupons, and rebates. This review looks at recently published studies (2000-2016) conducted in real-world settings on how changes in food prices can affect access, purchasing, and consumption of foods, especially healthy foods and beverages (e.g., fresh or frozen fruits and vegetables, low-sugar beverages, whole grains, and healthfully prepared entrees and side dishes).

The review finds that while there were considerable differences in how these studies were conducted and that due to this there was limited agreement in specific findings, most studies showed that pricing incentives can effectively promote the sale and consumption of healthy foods.

### Methods

This review was based on an online search of published studies that focused on the following keywords: pricing strategies, consumer behavior, marketing, cost savings, food purchasing, food supply, dietary intake, eating behavior, food intake, food and beverages, and snacks. The studies focused on individuals or stores in middle- and high-income countries. The studies included food pricing alone or in combination with other strategies (e.g. food labeling, nutrition education), and study outcomes were measured at the retail (stocking, sales) and/or consumer (purchasing, intake) levels. Based on these criteria, 30 distinct studies were included in this review.



## Results

The results of this review of pricing studies have been published in *Preventing Chronic Disease*, a peer-reviewed scientific journal.<sup>1</sup> The authors estimate that this is the first systematic review to evaluate the effectiveness of pricing strategies on access, purchasing, and consumption of healthy and unhealthy foods and beverages, including sugar-sweetened beverages, and foods high in saturated fat and sugar, in various socioeconomic settings.

The review shows that:

- The most common impact of pricing strategies was increased sales of healthy foods (7 studies, 35%), followed by improved revenues or total profits (4 studies, 20%), and increased stocking of healthier foods (4 studies, 20%).
- Three studies (15%) also found decreased sales of unhealthy foods and two studies found increased sales of healthy foods compared to unhealthy foods.
- Food pricing improved consumer perceptions related to healthy eating and affordability of eating fruits and vegetables in seven studies (70%).
- The majority of studies (63%) measuring consumption found improvements in healthy foods and beverages intake when consumers had a price incentive to buy them.
- Overall, pricing incentives, alone or in combination with other approaches such as nutrition education and point of purchase promotions, appeared to be successful in changing consumer behavior. Several studies found improvements in purchasing of healthy foods and a reduction in the purchasing and consumption of unhealthy foods.
- Although few studies assessed health-related outcomes, such as body mass index, heart disease risk indicators, and vitamin or antioxidant intake at the consumer level, most found no impact.
- There was no strong pattern to indicate that one type of pricing intervention worked better than another – they all appear to positively impact healthful food availability, purchasing, and consumption.

## Conclusions and Recommendations

The findings that pricing interventions generally increased stocking and sales of promoted foods and beverages are encouraging. It is important to consistently demonstrate these effects, particularly in terms of sales and revenues, in order to build support from retailers and vendors to both stock and promote price incentives for healthy foods and beverages.

Additional studies are needed to differentiate the potential impact of particular pricing strategies and policies over others. Importantly, future studies need to test strategies where consumers are “nudged” to purchase healthy foods through prominent displays, food labels, and placement of foods. This type of behavioral economic strategy may be effective, particularly when coupled with a pricing intervention and should be tested further.

Most studies in this review promoted fresh fruits and vegetables. Yet, especially for small retailers located in low-income settings, these foods may be hard to get, have high perishability, and raise concerns about safety and handling. In addition, it is arguable that focusing on fresh fruits and vegetables alone is unlikely to make a substantial dent in diet-related diseases, such as obesity and diabetes. Pricing studies should be broadened to include a range of healthier foods and beverages, including frozen and canned foods that adhere to federal nutrition guidelines, and simultaneously discourage purchase and consumption of unhealthy foods and beverages.

*This issue brief is based on a systematic review conducted by Joel Gittelsohn, PhD, Angela Trude, MSc, and Hyunju Kim. The article, which includes the full results and citations, is available at: [https://www.cdc.gov/pcd/issues/2017/17\\_0213.htm](https://www.cdc.gov/pcd/issues/2017/17_0213.htm)*

1. Gittelsohn J, Trude ACB, Kim H. Pricing Strategies to Encourage Availability, Purchase, and Consumption of Healthy Foods and Beverages: A Systematic Review. *Prev Chronic Dis* 2017;14:170213.

### About Healthy Eating Research

*Healthy Eating Research* (HER) is a national program of the Robert Wood Johnson Foundation. Technical assistance and direction are provided by Duke University under the direction of Mary Story PhD, RD, program director, and Megan Lott, MPH, RDN, deputy director. HER supports research to identify, analyze, and evaluate environmental and policy strategies that can promote healthy eating among children and prevent childhood obesity. Special emphasis is given to research projects that benefit children and adolescents and their families, especially in lower-income and racial and ethnic populations at highest risk for obesity. For more information, visit [www.healthyeatingresearch.org](http://www.healthyeatingresearch.org) or follow HER on Twitter at [@HERResearch](https://twitter.com/HERResearch).

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