

Taxing Junk Food Could Stem Obesity Better Than Subsidizing Healthy Food, Study Shows

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(PhysOrg.com) -- One way to stem the rising rates of obesity may be to mimic the successful approach used to decrease smoking: taxes.

A laboratory experiment conducted in the University at Buffalo's Division of Behavioral Medicine showed that lowering the price of healthy foods did not result in "shoppers" improving the [nutritional content](#) of the foods they purchased.

While study participants did select more of the healthier options when they were less expensive, the shoppers used the money they saved on less-expensive healthier foods to buy more of the less-healthy options, results showed.

But when the researchers increased the price of foods such as hot dogs, potato chips and Ritz Bits Peanut Butter Sandwich Crackers by adding a 12.5 percent to 25 percent tax, the shoppers reduced purchases of these foods and spent a larger portion of their budget on healthier choices like bananas, tuna and chicken noodle soup.

Results of the study appear in the current issue of the journal [Psychological Science](#).

"Taxing high-calorie-for-nutrient [HCFN] foods had the dual benefit of reducing purchases of these foods while increasing purchases of low-calorie-for-nutrient foods [LCFN] with lower energy density," says the study's first author Leonard H. Epstein, PhD, UB Distinguished

Professor of Pediatrics and head of the Division of Behavioral Medicine.

"From a public-policy standpoint, this strategy had the additional benefit of generating significant tax revenue. If policymakers aim to reduce consumption of HCFN foods to control rising rates of obesity, then taxing these foods may be more effective than subsidizing LCFN foods.

"In our experiment, a tax that increased the price of foods by 12.5 percent reduced the total calories purchased by 6.5 percent," adds Epstein. "This resulted in a 12.8 percent reduction in fat calories and a 6.2 percent reduction in calories from carbohydrates."

The study involved 42 lean and overweight mothers, divided 20-to-22 between those with family incomes below and above \$50,000 per year, respectively. UB's Division of [Behavioral Medicine](#) laboratory was set up to simulate a grocery store. Cards with pictures of more-healthy and less-healthy food and beverage items were arranged in sections according to food category, and prices and nutrient values were printed on the cards.

The participants were given a study income of \$22.50 per family member to go on a 2-hour grocery shopping trip. Told to imagine she had no food in the house, each participant set about selecting a week's groceries for her family by selecting the food cards. Research staff collected the cards and recorded the prices and nutritional values.

Each participant went food shopping five times. Research staff set the prices of each item before each task. During one experiment, prices were set based on current prices at a local supermarket. During two tasks, prices on the LCFN foods were lowered, described as subsidies, by 12.5 percent and 25 percent, while HCFN prices remained constant. During another two tasks, prices of HCFN were raised by 10 and 25 percent, respectively.

Selections from each shopping task were analyzed for nutrient values and costs of the chosen foods. Analysis showed that "taxing" less [healthy food](#) is a potential strategy to lower consumption of those products.

"The results of this study suggest that the goal would be to develop a strategy that simultaneously reduces purchases of less healthy foods while increasing the purchase of healthier options," says Epstein. "Public health initiatives aimed at modifying food purchasing by manipulating prices may be an important addition to clinical interventions to prevent or treat [obesity](#)."

Epstein and colleagues currently are planning a study combining taxes and subsidies in an expanded experimental grocery store, as well as studies on how individual differences, such as impulsivity, influence response to changing prices.

Provided by University at Buffalo

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