A penny-per-ounce tax on sugar-sweetened beverages keeps the doctor away and saves money

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Over the past 10 years, Americans drank more sugar-sweetened beverages than ever-as much as 13 billion gallons a year-making these drinks the largest source of added sugar and excess calories in the American diet and, arguably, the single largest dietary factor in the current obesity epidemic. While many states have a sales tax on soda, experts believe they are too low to impact consumption. In a study conducted at Columbia University Medical Center and the University of California, San Francisco, researchers estimated that if a higher, penny-per-ounce tax were imposed on sugar-sweetened beverages, it would result in an approximately 15% reduction in consumption and reduce the prevalence of obesity, diabetes, and cardiovascular disease.

The study findings are published online in the January issue of *Health Affairs*.

The researchers estimated that, over a ten year period (2010-2020), the penny-per-ounce tax could reduce new cases of diabetes by 2.6%, as many as 95,000 coronary heart events, 8,000 strokes, and 26,000 premature deaths. These health benefits represent more than $17 billion over a decade in medical costs avoided for adults aged 25 and older, in addition to generating approximately $13 billion in annual tax revenue.

"While there is some uncertainty as to what drinks people would choose instead of taxed beverages, our conclusion that a penny-per-ounce tax..."
would reduce consumption by 15% is actually a conservative estimate," said Y. Claire Wang, MD, assistant professor of Health Policy and Management at Columbia University's Mailman School of Public Health. Dr. Wang notes that the tax would have the greatest impact among younger adults and men of all ages, who drink more sugar-sweetened beverages than older adults and women.

Using data from the National Health and Nutrition Examination Survey for the years 2003-2004 and a questionnaire on food choices and frequency of meals, the investigators looked at two ways that a decrease in sugary beverage consumption would impact health: overall weight reduction and decreased risk of type 2 diabetes, both of which reduce cardiovascular disease risk over time.

According to the investigators, a combination of water, diet drinks, and more nutritious caloric beverages would likely replace the sugar-sweetened beverages, resulting in an estimated savings of as many as 60 calories for every 100 calories of sugar-sweetened drink not consumed.

"With the estimated number of 860,000 fewer obese adults aged 25-64, and given the greater reductions in consumption among younger people, the longer-term health benefits would be far greater than the impacts during the first 10 years," noted Dr. Wang.

Sugar-sweetened beverages are cheap to buy, but they cost the U.S. plenty: about $174 billion per year on diabetes treatment costs and $147 billion on other obesity-related health problems. Because weight gain is just one factor in how sugary beverages contribute to diabetes and heart disease, the researchers point out, even if all the calories saved by cutting soda consumption were replaced and body weight remained the same, cutting consumption would still reduce diabetes and heart disease.

Some opponents to a soda tax warn that it would disproportionately
burden low-income households, which purchase more sugar-sweetened beverages than those in higher-income brackets. Dr. Wang and her colleagues pointed out that the evidence is mixed regarding whether low-income consumers are more price-sensitive when it comes to these beverages. In addition, low-income people and racial and ethnic minorities bear a greater burden of obesity, cardiovascular disease, and diabetes, these groups stand to benefit the most from such a tax policy in terms of their health and savings.

"Sugary soft drinks really are liquid candy, and their low purchase price hides the true costs of health problems associated with them," said Lee Goldman, MD, MPH, Harold and Margaret Hatch Professor of Medicine and Epidemiology and Dean of the Faculties of Health Sciences and Medicine at Columbia University Medical Center, and also a coauthor on the paper. "Our model estimates that a penny-per-ounce tax would substantially reduce obesity, diabetes and heart disease among adults in the United States."


Provided by Columbia University

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