

The Price of Soft Drinks

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John Stith Pemberton continues to have an enormous impact on our world. It wasn't because of his services in the Civil War as a lieutenant colonel in the Confederate Army. Nor was it because he used his pharmacy skills to create a laboratory and pharmaceutical business, that even to this day still functions as a branch of the Georgia Department of Agriculture. He achieved greatness by concocting a sweetened syrupy drink that sold for 5 cents a glass at Jacobs' Pharmacy in Atlanta.

For it was on that day, May 8, 1886, Pemberton, a pharmacist, invented Coca-Cola.¹ The world has never been the same.

Americans love soda. It is a 14 billion-gallon-a-year industry in the United States, including sugar-sweetened beverages and sports drinks. On a more personal level, this amounts to about 506 12-ounce servings of soft drinks annually per person.² That's almost 1-1/2 cans of soda pop each day, per person, or about 50 gallons per person per year. And that's not counting diet soft drinks.

The impact of soft drinks hits children especially hard. The California Center for Public Health Advocacy reported in the "Soda Fact Sheet" that the average boy drinks more than 700 12-ounce cans of soda each year.³ That's about two cans a day of Coke, Pepsi, 7-Up, Mountain Dew, or other ubiquitous carbonated caloric time bomb. In fact, each 12-ounce can of an average soda contains 10 teaspoons of sugar (or, most likely, high fructose corn syrup) and more than 140 calories. Imagine trying to eat 10 teaspoons of sugar one after another.

Consider how this weighs in on our health. The California Center for Public Health Advocacy stated, "Scientific evidence



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consistently supports the conclusion that drinking soda and other sugar-sweetened beverages increases a person's risk of being overweight or obese."³

Another article stated, "Sugar-sweetened beverages, soda sweetened with sugar, corn syrup, or other caloric sweeteners and other carbonated and uncarbonated drinks (such as sports and energy drinks) may be the single largest driver of the obesity epidemic."⁴

Almost one-third of American adults are obese.⁵ The National Health and Nutrition Evaluation Survey from 2003-2004 stated that 66.3 percent of adults age 20 and older are either overweight (body mass index between 25.0-29.9) or obese (BMI \geq 30.0), while 17 percent of adolescents age 12 to 19 and 19 percent of children from 6 to 11 are overweight.⁶

The California Center for Public Health Advocacy stated, "Reducing the amount of sugar-sweetened beverages people drink is an important strategy to reverse the obesity epidemic in California and across the country."³

We need to decrease soft drink consumption to improve overall health, but what can be done to reduce this addiction? Anticipatory guidance? Nutritional counseling? Scolding? How about a financial disincentive?

In "Ounces of Prevention — The Public Policy Case for Taxes on Sugared

Beverages," Kelly D. Brownell, PhD, and Thomas R. Frieden, MD, MPH, argue just that point. They wrote in the April 30, 2009, *New England Journal of Medicine*, that taxing soft drinks may be justified because of the indirect impact on our country, because "an estimated \$79 billion is spent annually for overweight and obesity alone — and approximately half of these costs are paid by Medicare and Medicaid, at taxpayers' expense."⁴ They also argue an increase in revenue can be used to promote health.

This argument is not new. David Patterson, governor of New York, proposed an increase in fees in his 2009 budget to balance a multibillion dollar deficit, including a fee aimed at soft drink consumption.⁷ He proposed a 18 percent fee on soda and other sweetened drinks, but it excluded diet sodas and drinks with more than 70 percent natural fruit juice. Patterson and his staff believed such a fee would decrease soda consumption by 5 percent because of the extra cost to the consumer. Patterson believed it would battle the obesity epidemic and also generate an additional \$404 million the first year and more than a half-billion dollars each year thereafter. Critics and the public lambasted the "fat tax" proposal. It had no chance, no public support, and was basically dead on arrival. It has since been withdrawn.

California's Legislature has tried a fee on sodas and soft drinks in the past.⁸ In 2002, SB 1520 began as a fee of \$2 per gallon of sweetening syrup and \$0.21 per gallon of bottled soft drinks or powder mixes, with the money generated to go directly to the battle of obesity. The bill stalled but was reborn without the fee the next year as SB 677, but required only nutritional beverages to be sold at elementary to junior high public schools during school hours. It became law. The concept extended further as SB 965 succeeded. It defined such beverages and included high schools in the new law, and Gov. Arnold Schwarzenegger signed it in 2005.

As recently as May 2009, the subject received attention, this time by the U.S. Senate Finance Committee that evaluated a proposal to add a 3-cent tax on soft drinks but not on diet sodas, in order to generate \$24 billion in four years for use in funding a small part of the much-debated universal health care goal.^{2,9} It didn't get far and was never heard again.

One key factor that has been largely forgotten from the soft drink controversy is this: The problem of tooth decay. It's the 800-pound gorilla (BMI \geq 30). It largely is avoided, and, rarely, if at all, registers on the radar screen. The *New England Journal of Medicine* doesn't, nor do 90 percent of the articles and links that talk about fees and taxes on soft drinks. The focus is usually exclusively on calories instead of caries.

The negative effect of soft drinks on the oral health of America should be brought to the forefront. We shouldn't just focus on improving BMIs, but also DMFTs.

Oral health prevention and treatment programs like the Children's Dental Disease Prevention Program (CDDPP) can benefit from a manufacturer syrup fee as such state programs do not always receive the necessary revenue support

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from the state budget. During the California legislative budget negotiations this summer, all remaining funding was eliminated for the already decimated CDDPP program. The fee would make it possible to create an oral health screening, prevention, and treatment program to at-risk children throughout California with a dedicated, stable funding source. It is a positive step in improving oral health.

The momentum on placing fees on soft drinks is gaining. On Sept. 17, 2009, a group effort by the California Center for Public Health Advocacy and the UCLA Center for Health Policy Research posted the report "Bubbling Over: Soda Consumption and Its Link to Obesity in California" and provided links to the latest specific data on soft drink consumption and obesity in each California county and many cities.¹²

By individual city, the study reported the highest percent of children ages 2 to 17 that have had one or more sodas each day is Merced at 61.9 percent, San Francisco at the lowest with 36.9 percent, and the California average at 49.4 percent. The study further broke down the data between children and adolescents in the individual county statistics. For example, the highest percent of children ages 2 to 11 that have had one or more sodas each day is my own: Imperial County at 60.7 percent, the lowest is Marin County at 18.4 percent, and the California average by county at 41.2 percent while the highest

percent of children ages 12 to 17 that have had at least one soda per day is San Joaquin at 77.8 percent.

This study makes bold conclusions, including recommending the California Legislature to "impose an industry fee on soda and other sugar-sweetened beverages and earmark funds for community-based prevention programs" and wants the U.S. Congress to "tax soda and other sugar-sweetened beverages" for the same purposes.

Such a fee would be a huge step forward to ensuring revenue for use in state programs to improve health, whether it is used to address the problem of obesity or tooth decay. The cause and effect would be directly related — one can of soda at a time.

Pemberton never fully realized the significance of his invention. But with a fee on soft drinks to improve the oral health of the community, it would give new meaning to the phrase, "Have a Coke and a smile." ■■■■

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