

Small Taxes on Soft Drinks and Snack Foods to Promote Health

ABSTRACT

Michael F. Jacobson, PhD, and Kelly D. Brownell, PhD

Health officials often wish to sponsor nutrition and other health promotion programs but are hampered by lack of funding. One source of funding is suggested by the fact that 18 states and 1 major city levy special taxes on soft drinks, candy, chewing gum, or snack foods. The tax rates may be too small to affect sales, but in some jurisdictions, the revenues generated are substantial. Nationally, about \$1 billion is raised annually from these taxes. The authors propose that state and local governments levy taxes on foods of low nutritional value and use the revenues to fund health promotion programs. (*Am J Public Health*. 2000;90:854-857)

Poor diet and physical inactivity in the United States are estimated to cause about 310 000 to 580 000 deaths annually due to cancer, cardiovascular diseases, and diabetes.¹ The economic cost of diet-related diseases has been conservatively estimated to be at least \$71 billion annually (this estimate considers only coronary heart disease, cancer, stroke, and diabetes).² Despite the great need, there are too few programs designed to promote healthier diets and physical activity. Even the largest nutrition education programs receive negligible support. For instance, the National Cancer Institute spends only about \$1 million annually on the media component of its 5-A-Day campaign to encourage greater consumption of fruits and vegetables (G. Stables, National Cancer Institute, oral communication, April 16, 1999).

In contrast, the soft drink industry alone spends more than 600 times that much on advertising each year,³ and the restaurant industry spends more than \$3 billion annually on advertising.⁴ Coke and Diet Coke are supported by \$154 million; M&M candies, by \$67 million; Lay's potato chips, by \$56 million; and Kool-Aid beverages, by \$19 million.⁴

To compensate for an unhealthy food environment, it has been suggested that foods high in calories, fat, or sugar be subjected to special taxes and that the cost of healthful foods, such as fruits and vegetables, be subsidized.⁵⁻⁷ A steep tax would probably reduce the consumption of the taxed foods and could be used to generate funding to subsidize healthful foods. It is likely that such a subsidy would increase sales,⁸ but there are mixed opinions on the feasibility and desirability of a steep tax.⁹⁻¹² In contrast, a *small* tax may be more politically feasible and still could generate significant revenues to support health measures.

Current State and Local Taxes

To ascertain current policies regarding taxes on less nutritious foods, we undertook a review of state tax laws. We identified 19 states and cities that levy such taxes. These taxes apply to soft drinks, candy, chewing gum, or snack foods (potato chips, pretzels, and others) (Table 1). Taxes may be levied at the wholesale or retail level and may be levied in terms of a fixed tax per volume of product or as a percentage of sales price. Likewise, in Canada, the federal government

and 7 provinces apply a sales tax to soft drinks, candy, and snack foods but not to other foods.

Health experts might suggest that it would be more appropriate to tax foods on the basis of their content of saturated or trans fat,¹³ because of the contribution of these fats to coronary heart disease, than to tax snack foods. However, legislative bodies find it more practical to tax well-recognized categories of food that play little useful role in nutrition. Soft drinks and snack foods typically add unneeded calories to the diet or replace nutritious foods, such as low-fat milk or fruit, without providing significant levels of nutrients.¹⁴

Even small taxes on widely consumed foods can raise substantial revenues. For instance, Arkansas's tax on soft drinks, about 2 cents per 12-oz (360-mL) can, generates \$40 million per year. We estimate that California's 7.25% sales tax on soft drinks generates about \$218 million in revenues annually. Nationally, special taxes on soft drinks, candy, and snacks generate about \$1 billion per year (Table 1).

In most jurisdictions, snack-tax revenues go into the general treasury. In several instances, however, some or all of the revenues are earmarked for special purposes, although not for nutrition programs. For instance, West Virginia uses its soft-drink-tax revenues to support its medical, dental, and nursing schools, while Tennessee uses a portion of its soft-drink-tax revenues to help clean up highways. No jurisdiction uses revenues to subsidize the prices of healthful foods.

It is unknown whether sales taxes and other small taxes have a significant effect on sales and consumption. If the price elasticity of soft drinks were about the same as that estimated for cigarettes, about -0.4,¹⁵ a 5% tax would result in a 2% decline in sales. It is possible that small declines in sales would be mitigated by price reductions absorbed

Michael F. Jacobson is with the Center for Science in the Public Interest, Washington, DC. Kelly D. Brownell is with the Department of Psychology, Yale University, New Haven, Conn.

Requests for reprints should be sent to Michael F. Jacobson, PhD, Center for Science in the Public Interest, 1875 Connecticut Ave, NW, #300, Washington, DC 20009-5728 (e-mail: jacobson@cspinet.org).

by producers, wholesalers, and retailers. We are not aware of data comparing snack sales in states with and without snack taxes; it is possible that any effect of taxes would be masked by other differences, such as pricing, climate, and competitive forces.

The soft drink and snack food industries oppose and have campaigned against special taxes on their products. Partly for that reason, 12 cities, counties, or states have reduced or repealed their snack taxes in recent years (Table 2). For instance, in response to a

Coca-Cola offer to build a bottling facility in Louisiana, legislators passed a law in 1993 that halved the soft drink tax beginning in 1995 and repealed the tax entirely contingent upon a bottler contracting to build a bottling facility worth \$50 million or more.¹⁶ Coca-

Table 1—Current Soft Drink and Snack Food Taxes

| State or Locality | Year Enacted or Effective | Sales or Other Tax Specifically Applied; Representative Foods Taxed | Annual Income (\$) | Use of Revenues/Notes |
|----------------------|---------------------------|---|--|---|
| Arkansas | 1992 | \$0.21 per gal of liquid soft drink; \$2 per gal of soft drink syrups | 40 435 799 | Funds Medicaid; tax also approved on a ballot initiative in November 1993 |
| California | 1933 | Sales tax (7.25%) on soft drinks | 218 000 000 (estimate) | General funds |
| Chicago | 1993 | Distributors pay 3% on sales of containers, 9% on syrups | 8 218 975 | General funds |
| District of Columbia | 1993 | Sales tax (5.75%) on snack foods, soft drinks | 4 000 000 | General funds |
| Illinois | Mid-1980s | Full sales tax (6.25%) on soft drinks (other foods taxed at 1%–2%) | 69 000 000 | General funds |
| Indiana | 1963 | Sales tax (5%) on candy, gum, soft drinks, bottled water, dietary supplements | 43 000 000 | General funds |
| Kentucky | 1972 | Sales tax (6%) on candy, gum, soft drinks | 34 000 000 | General funds |
| Maine | 1991 | Sales tax (5.5%) on snack foods, soft drinks, carbonated water, ice cream, toaster pastries | 14 600 000 (state's estimate of snack food items added under 1991 law) | General funds |
| Minnesota | 1982 | Sales tax (6.5%) on candy, carbonated drinks, fruit drinks (not containing any fruit juice), chewing gum, single-serve ice cream | 45 000 000 (estimate) | General funds |
| Missouri | 1962 | \$0.003 per gal of soft drinks produced | 400 000–500 000 | General funds (for health department inspections of bottling plants) |
| New Jersey | 1966 | Sales tax (6%) on candy, carbonated soft drinks | 67 000 000 | General funds |
| New York | 1965 | Sales tax (7.5%, includes average of 3.5% for local jurisdictions) on soft drinks, candy, confectionary, fruit drinks with less than 70% natural fruit juices | 203 000 000 (state's estimate) | General funds |
| North Dakota | 1985 | Sales tax (5%) on candy, chewing gum, carbonated beverages, soft drinks with less than 70% fruit juice, powdered drink mixes | 5 000 000 (estimate) | General funds |
| Rhode Island | 1984 | \$0.04 per case (24 12-oz cans) of soft drinks, soda water, mineral water, beer paid by wholesaler | 700 000 | General funds (but originally earmarked for environmental management, litter control) |
| Tennessee | 1963 | 1.9% (increased in 1981 from 1.5%) of gross receipts from soft drinks and soft drink ingredients paid by manufacturers and bottlers | 11 600 000 | 21% for highway litter control (beginning in 1981) |
| Texas | ~1961 | Sales tax (6.25%) on carbonated and noncarbonated packaged soft drink beverages, diluted juices, candy | 160 000 000 (state's estimate for soft drinks only); 56 000 000 (estimate for candy) | General funds |
| Virginia | 1977 | Small excise tax on wholesalers and distributors based on total sales of carbonated soft drinks | 93 000 | Litter control and recycling fund |
| Washington | 1989 | \$1 per gal of syrup | 9 500 000 | Violence prevention and drug enforcement |
| West Virginia | 1951 | \$0.01 per half-L of carbonated and noncarbonated soft drinks, fruit drinks, and chocolate milk and \$0.80 per gal of syrups paid by manufacturers or wholesalers | 12 539 000 | West Virginia University medical, dental, and nursing schools |

Note. Data were derived from state and local tax departments and from the *State Tax Handbook* (Chicago, Ill: Commerce Clearing House). Estimates were provided by the Center for Science in the Public Interest (except where otherwise noted) based on prorated national sales of soft drinks and candy.

Table 2—Repealed Soft Drink and Snack Food Taxes

| State or Locality | Year Enacted | Year Repealed | Tax | Annual Income (\$) | Use of Revenues/ Background of Repeal |
|-----------------------|--------------|---------------|---|-----------------------------------|--|
| California | 1991 | 1992 | Sales tax on snack foods | 210 000 000 (state's estimate) | General funds; opponents said tax was hard to administer because of the unclear definition of which foods to tax; tax is now limited to soft drinks |
| Louisiana | 1938 | 1997 | 2.50% (reduced to 1.25% in 1993) wholesale tax on bottled soft drinks and syrups | 13 000 000 | General funds; a 1993 law reduced tax from 2.50% to 1.25%, with full repeal if a bottler contracted to build a facility worth \$50 million or more; Coca-Cola signed such a contract in 1997 |
| Maryland | 1992 | 1997 | 5% sales tax applied to snack foods sold anywhere | 15 000 000 (state's estimate) | General funds; Frito-Lay threatened not to build a planned local plant if tax was not repealed |
| Baltimore City, Md | 1989 | 1997 | \$0.02 per soft-drink container ≤16 oz; \$0.04 per container >16 oz | 6 000 000 | General funds; bottlers, retailers, distributors, unions of employees in these industries, backed by soft drink companies, argued that tax causes loss of sales to suburban areas |
| Baltimore County, Md | 1989 | 1991 | \$0.02 per soft drink container ≤16 oz.; \$0.04 per container >16 oz | 4,000,000 | General funds; pressure from soft drink industry |
| Montgomery County, Md | 1977 | 1995 | \$0.02 to \$0.06 per container of soft drink, depending on size | 3 500 000–7 700 000 | General funds; opposition because beverage prices were higher than in surrounding jurisdictions |
| Mississippi | 1969 | 1992 | 5% (reduced to 3% in 1985) of wholesale value of soft drinks, artificial fruit drinks, bottled teas | 8 765 000 | Food and beverage industry lobbying |
| New York | 1990 | 1998 | \$0.02 per container (reduced to \$0.01 in 1995) of carbonated soft drinks and waters | 50 000 000–54 000 000 | Enacted to fund environmental bonds; went to general funds because bonds were not approved; strong soft drink lobby helped end the tax |
| North Carolina | 1969 | 1999 | \$0.01 per bottle; \$1 per gal of syrup, milk shake mixes, powdered drink bases | 40 000 000 | General funds; soft drink bottlers association lobbied for repeal |
| Ohio | 1993 | 1994 | \$0.008 per oz carbonated beverages; \$0.64 per gal of syrup | 59 800 000 | General funds; soft drink industry got constitutional amendment to repeal the soft drink tax on the ballot and spent about \$7 million in advertising campaign to defeat the tax |
| South Carolina | 1925 | 2001 | \$0.01 per 12-oz container; \$0.95 per gal syrup | 26 600 000 | General funds; soft drink/bottling industry lobbying |
| Washington | 1989 | 1994 | \$0.01 per 12-oz can | 14 000 000 | Violence prevention and drug enforcement; defeated in complex, poorly understood ballot initiative; bottlers probably played a part |

Note. Data were derived from state and local tax departments and from the *State Tax Handbook* (Chicago, Ill: Commerce Clearing House).

Cola signed such a contract in 1997.¹⁷ The plant was projected to generate several hundred new jobs and \$3 million annually in new taxes, although Louisiana loses about \$15 million annually in revenues from soft drink taxes. Similarly, in the mid-1990s in Maryland, Frito-Lay used “blunt threats” not to build a manufacturing and distribution center in Harford County to persuade the state to repeal its snack tax, which had generated \$15 million in revenues annually.¹⁸

Another problem with some taxes has been the complexity of determining which foods fall under a tax. For example, are drinks that contain 40% fruit juice “soft drinks”? Is a

4-oz package of crackers a “snack”? These are valid but not insurmountable concerns, as many jurisdictions have discovered. The complexities argue for simple, clear taxes.

Use of Revenues to Fund Nutrition and Physical Activity Programs

We estimate that a national tax of 1 cent per 12-oz soft drink would generate about \$1.5 billion annually. Similarly, taxes of 1 cent per pound of candy, chips, and other snack

foods, or fats and oils, would raise about \$70 million, \$54 million, and \$190 million, respectively. Because such small taxes are unlikely to have a significant effect on the price or consumption of food, they probably would not be strongly opposed by consumers.

A nationally representative opinion poll revealed that 1-cent taxes per pound of soft drinks, chips, and butter, with the revenues used to fund health education programs, were supported by about 45% of adults surveyed.¹⁹ This appears to be remarkably great support for a tax that would affect most adults and that has not been discussed in the media. An alternative, as practiced by several

jurisdictions, is to apply sales taxes, which are not applied to most foods, to snack foods or soft drinks.

Snack taxes could fund vitally needed health promotion programs. For example, a campaign in Clarksburg, WV, encouraged consumers to switch from higher fat to lower fat milk to reduce intakes of saturated fat. After the 7-week campaign, the market share of 1% or fat-free milk increased from 18% to 41%.²⁰ Most of that change was sustained for at least 1 year. The cost of the campaign, which used paid television and radio messages, was only 22 cents per resident.²¹

A campaign reaching about 200 000 people would cost about the same as 1 coronary-bypass operation. With adequate funding, such as that from snack taxes (or general revenues), similar campaigns could be mounted nationally and on a variety of diet/exercise issues. Once a sufficient number of such health promotion campaigns have been conducted, health economists can evaluate their cost-effectiveness. It also should be possible to measure the effectiveness of investing in increased physical education in schools, more bicycle paths and recreation centers, and other approaches to encouraging physical activity.

Small taxes on soft drinks, candy, gum, and snack foods are politically feasible and, when revenues are applied to health programs, are likely to be supported by many consumers. We suggest that public health professionals consider recommending snack taxes as a means of funding healthy eating and physical activity programs. Such pro-

grams could result in better health and lower health care costs.

Contributors

M. F. Jacobson did most of the research for this paper. M. F. Jacobson and K. D. Brownell cowrote the paper.

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