

Sugar-sweetened Beverage Tax Toolkit

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Key Messages for Education on the Role of Taxes on Cigarettes and Sugar-Sweetened Beverages to Improve Public Health

Background:

These are extraordinary times for New York State. Never before has the state been so short of cash, had such large deficits and been faced with insufficient resources to pay for education and health care. The projected budget shortfalls threaten our public health gains, all of our public health programs and the funding of our many contractors and partners.

If we combine the many resources, especially people power, to present a unified message in educating the public and key stakeholders, partners, and elected officials we are more likely to be heard.

WIN # 1: Improved Health for Children and Adults

Taxes that increase the price of unhealthy items, such as cigarettes or alcohol, are one of the most effective ways to reduce their purchase and use. While cigarette taxes are a proven strategy to decrease smoking, evidence that taxes on sugar-sweetened beverages will reduce their consumption and decrease obesity is emerging.

New York needs to take the lead in implementing these important initiatives to improve the health of New Yorkers.

- Every 10 percent increase in the price of cigarettes will reduce youth smoking by about 7 percent and overall cigarette consumption by about 4 percent.
- A \$1 increase in the cigarette tax in New York would prevent 106,500 children from becoming smokers in the future. For every three children prevented from becoming smokers, one smoking caused death is averted.
- A tax of 1 cent per ounce on sugar-sweetened beverages is expected to increase the price of soft drinks by 17% on average and reduce their consumption by a minimum of 10 percent. The impact on youth is expected to be even higher.
- Reducing consumption of sugar-sweetened beverages by 10 percent would save about 7,400 calories per year. If not replaced by other caloric beverages or food, this could reduce yearly weight gain by 2 pounds.

Win #2: Higher Revenue for New York State

Revenue raised through these taxes will go to the New York State Health Care Reform Act (HCRA) Resources Fund to support health care and health related initiatives, such as health promotion, tobacco control, and obesity and other chronic disease prevention programs.

- Taxes on cigarettes and sugar-sweetened beverages are a reliable source of revenue for states.
- A \$1 increase in the New York cigarette excise tax would create \$200 million in new annual revenue for the State.
- A one cent per ounce excise tax on sugar-sweetened beverages in New York is expected to raise \$450 million in new revenue in 2010-11 and \$1 billion in 2011-12 and beyond for the State.
- New Yorkers are already paying dearly for the medical costs associated with treating obesity, diabetes and tobacco caused disease. The portion of our state and federal taxes that goes to pay for treatment of obesity-related diseases is estimated at \$771 per New York household and for treatment of smoking-related diseases is \$822 per New York household.

Win #3: Public Support for Tobacco and Soft Drink Taxes

In national and state polls across the country, there is overwhelming public support for tobacco tax increases and for taxes on soft drinks, especially if those funds are used to help prevent youth from smoking and reduce childhood obesity.

- In New York, 59% of adults support a \$1 increase in the cigarette tax. If revenue from the tax is used to help smokers quit, 77% of New Yorkers support a tax increase.
- In New York, 52% of adults support a tax on soft drinks. If revenue from the tax is used to help prevent obesity among children and adults, 72% of New Yorkers would support such a tax.

Increasing cigarette taxes and levying taxes on sugar-sweetened beverages are **WIN, WIN, WIN** solutions for New York - a health win that reduces smoking, decreases obesity and diabetes, improves health and saves lives; a fiscal win that raises revenue and reduces health care costs; and a political win that is supported by New York citizens.

Sugar-Sweetened Beverages: Key Facts

The Problem:

Obesity is a problem in adults and children. One out of every four adult New Yorkers is obese. Obesity among children and adolescents has tripled over the past three decades.

Sugar-sweetened beverages contribute to obesity. Sugar-sweetened beverages are the largest single source of added sweeteners in the US diet. Americans consume approximately 46 gallons of sugar-sweetened beverages annually. Obese and overweight adults are more likely to consume soft drinks than normal weight adults.

The Impact:

Obesity is linked to higher rates of many preventable illnesses, including diabetes, heart disease, asthma, hypertension and some cancers.

- Each 12-ounce soft drink per day consumed by children increases their odds of becoming obese by 60%.
- High soft drink consumption increases risk of diabetes by 83% in women.

An estimated \$7.6 billion is spent annually on adult obesity-related health problems in New York State. In New York, approximately 80% of this cost is paid for by publically funded health care programs - Medicaid and Medicare.

Part of the Solution:

Price influences food purchasing behavior. An increase in the cost of sugar-sweetened beverages will reduce purchasing and consumption, thereby reducing the risk for overweight and obesity and the associated health complications. A poll conducted by the Citizens' Committee for Children of New York in December of 2008 found that more than half of adult New Yorkers support a sugar-sweetened beverage tax, and if the revenues are used to address the prevention of childhood and adult obesity, support increases to 72%.

FACT SHEET – SUGAR-SWEETENED BEVERAGES AND HEALTH

Tax on Beverage Syrups and Soft Drinks (Sugar-sweetened Beverage Tax)

- The purpose of the tax is to increase the cost of sugar-sweetened beverages to decrease consumption, improve nutrition, and reduce obesity and diabetes.
- Revenue raised through this tax will go to the New York State Health Care Reform Act (HCRA) Resources Fund to be used for health related initiatives.
- The bill proposes to levy an excise tax (equivalent to the rate of one cent per ounce of beverage) on beverage syrups, powders, base products, and soft drinks that contain more than 10 calories per 8 ounces, including, but not limited to: soda, sweetened water, sports drinks, “energy” drinks, colas, fruit or vegetable drinks containing less than 70% natural fruit or vegetable juice, and bottled, sweetened coffee or tea.
- Sugar-sweetened milk, milk products, milk substitutes, dietary aids, and infant formula are exempt.

Rationale for Sugar-sweetened Beverage Tax

- Intake of sweetened beverages and soda has increased over time, as has the prevalence of obesity among both children and adults.
- Numerous studies have found that an increase in sweetened beverage and/or soda consumption is associated with increased weight gain and obesity.
- Reducing consumption of sweetened beverages has been shown to reduce weight and weight gain.
- Increasing the price of sweetened beverages has the potential to reduce consumption of these beverages.
- Sweetened beverages such as soda are a discretionary item in the diet; they provide many calories but no essential nutrients.

Obesity Statistics

- One out of every four adult New Yorkers is obese (25.5%), up from 13.9% in 1995. The percentage of New York State adults who are overweight or obese increased from 42% in 1997 to 60% in 2008. These data, which are based on self-reported height and weight collected annually in the Behavioral Risk Factor Surveillance System, likely underestimate the true prevalence of overweight and obesity.¹ Recent national survey data, in which respondents had their heights and weights actually measured, show that 33.3% of men and 35.3% of women in the US are obese.²
- Obesity among children and adolescents has tripled over the past three decades.³
- Among low-income children, aged 2-5 years, enrolled in New York’s WIC program, 32% are overweight or obese; 15% are obese, and another 17% are overweight.
- Among elementary school students in New York, 38-43% are overweight or obese; 20-24% are obese, while an additional 18-19% are overweight.

Economic Impact of Obesity

- According to a report by New York State Comptroller DiNapoli, New York ranks second among U.S. states in adult obesity-related medical expenditures, with total spending estimated at nearly \$7.6 billion; 81% of which is paid by Medicaid and Medicare, far exceeding the national average of 52%.⁴

Impact on Health

- Obesity, which is epidemic in New York, is linked to higher rates of many preventable illnesses, including diabetes, heart disease, cancer, asthma and hypertension.
 - Each additional 12-ounce soft drink consumed per day by children increases their odds of becoming obese by 60%.⁵
 - High soft drink consumption increases risk of diabetes by 83% in women.⁶

Impact of Price on Consumption

- An excise tax of one cent-per-ounce is expected to increase the price of sugar-sweetened beverages by approximately 17%, which is expected to reduce consumption by 10-15 percent.
- Consumption of sweetened beverages varies widely across the population. Those who consume higher amounts of sweetened beverages are more sensitive to price increases and more likely to reduce consumption as a result of price. In a Norwegian study, increasing the price of soft drinks by 10.8% was estimated to decrease consumption by nearly 7% in the lowest consumption group, by 17% in the highest consumption group, and by an average 9.5% overall. Increasing the price by 27.3% was associated with a drop in consumption of 17% in the lowest use group, 44% in the highest use group, and an overall 24% reduction in consumption across the population.⁷
- In a U.S. study of low-income households, a 10% increase in the price of soft drinks was associated with an 8% reduction in consumption.⁸
- U.S. adults consume an average of 46 gallons of sugar-sweetened beverages annually.⁹ A 10% reduction in consumption would reduce that to 41.4 gallons per year on average, saving approximately 7,400 calories or about 2 pounds a year.

Evidence Relating Sugar-sweetened Beverages and Health

Consumption Recommendations

Children

- The American Heart Association (AHA) and the U.S. Department of Agriculture (USDA) recommend that children and adolescents limit consumption of sweetened beverages and naturally sweet beverages, such as fruit juice, to no more than 4 to 6 ounces per day for children ages 1 to 6 years, and to no more than 8 to 12 ounces per day for children ages 7 to 18 years.^{10, 11}
- The Centers for Disease Control and Prevention (CDC) Division of Nutrition, Physical Activity, and Obesity (DNPAO) has identified six evidence-based strategies for preventing and reducing overweight and obesity, including "Decreasing the consumption of sugar-sweetened beverages."¹²

Current Consumption Patterns

Overall

- The per capita consumption of all carbonated soft drinks (diet and non-diet) increased from 24 gallons/year in 1970¹³ to 52 gallons/year in 2005, an increase of 117%.⁹ The greatest increase has occurred since 1986.¹³
- In 2005-06, U.S. adults consumed an average of 46 gallons of sugar-sweetened beverages annually.⁹
- Based on data from the 1994-96 Continuing Survey of Food Intakes by Individuals (conducted by the USDA), regular soft drinks accounted for 33% of the intake of total added sugars by people aged two years and older, while sweetened fruit drinks contributed an additional 10% of total added sweeteners.¹⁴

Children

- Daily caloric intake from sugar-sweetened beverages increased from only 55 kcal/day in 1965 to 204 kcal/day in 1988-1994 to 224 kcal/day in 1999-2004.
- Between 1988-94 and 1999-2004, there was a 20% increase in consumption of sugar-sweetened beverages among children aged 6-11 years of age. Among adolescents, the increase in intake was greater among Blacks and Hispanics than Whites.^{15, 16}
- The percentage of calories from sweetened beverages for youth, aged 2-18 years, has increased steadily from 4.8% of total calories (1977-1978) to 6.1% (1989-1991) to 8.5% (1994-1996) to 10.3% of daily calories in 1999-2001.^{17a}
- A recent study found that consumption of sweetened beverages by youth, aged 2-18 years, increased from 87 kcal/day in 1977-1978 to 254 kcal/day in 2005-2006; a 75% increase.^{17b}

Adults

- Based on the 2005 NYC Community Health Survey, 27% of NYC adults reported consuming at least one 12-ounce serving of sweetened soda per day; the average consumption was 1.9 sodas per day. Obese and overweight adults were more likely to consume sodas than normal weight adults (33% and 29% vs. 24%, respectively). Mexican Americans, African Americans (US born) and Puerto Ricans were more than twice as likely to consume soda as whites (49%, 42% and 38% vs. 18%, respectively). Those with incomes less than 200% of the federal poverty level were more likely to consume sodas than were those with incomes above 600% of the poverty level (33% vs. 18%, respectively).¹⁸
- New York State Behavioral Risk Factor Surveillance System data from 2009 indicate that 61% of adults regularly drink sugar-sweetened soft drinks. Younger adults, those who were less educated and or had lower incomes were more likely to consume sweetened soft drinks daily.

Impact on Health

- In a meta-analysis of 88 studies, soft drink intake was associated with increased calorie intake and body weight. Soft drink intake also was associated with lower intakes of milk, calcium, and other nutrients and with an increased risk of several medical problems (e.g., diabetes). Of note, studies funded by the food industry reported significantly smaller effects than did non-industry-funded studies. The authors conclude that recommendations to reduce population soft drink consumption are strongly supported by the available science.¹⁹

Diabetes - Adults

- Two large prospective cohort studies found an association between regular consumption of sugar-sweetened soft drinks and the risk of Type 2 Diabetes:^{6, 20}
 - Compared to women who consumed less than 1 sugar-sweetened soft drink per day, women consuming 1 or more such beverages per day had an 83% increased risk of Type 2 diabetes.⁶
- A 4-year study of men and women in the Framingham Heart Study found that those who drank one or more sodas per day were 50% more likely to develop metabolic syndrome (a combination of risk factors, such as high waist circumference, high blood pressure, impaired fasting glucose or diabetes, that strongly predicts the likelihood of developing cardiovascular disease) than those who drank less than one soda per week.²¹

Obesity - Children

- A prospective study of school-age children found that children who consumed more sugar-sweetened drinks at baseline had a greater increase in their body mass index (BMI) regardless of whether their consumption of sugar-sweetened drinks changed. Among children who increased their consumption of sugar-sweetened drinks by one serving a day, their body mass index (BMI) increased by 0.24 kg/m^2 and their odds of being obese significantly increased (odds ratio 1.60).⁵
- A study of 2 to 3-year-old children enrolled in WIC in Missouri between 1999 and 2001 found that among children overweight at baseline (BMI for age $> 85^{\text{th}}$ percentile but $< 95^{\text{th}}$ percentile), those who consumed one or more sweet drinks (soda, juice, fruit drinks) per day were 1.8 – 2.0 times more likely to become obese (BMI for age $> 95^{\text{th}}$ percentile) than those who drank less than 1 sweet drink/day.²²
- In the National Heart, Lung, and Blood Institute (NHLBI) Growth and Health Study, which followed over 2000 girls from ages 9-10 years until 18-19 years of age, their average soda consumption increased almost 300% over the 10 years of the study. Soda was the only beverage that was associated with increased obesity (BMI).²³
- In a review of the evidence related to 28 dietary factors thought to be associated with obesity in children, intake of sweetened beverages was the only dietary practice that was consistently linked to overweight in children.²⁴
- A 75 pound child would need to bicycle vigorously for about 30 minutes to burn off the calories in a 12-ounce can of soda.²⁵

Obesity - Adults

- The 2005 NYC Community Health Survey found that women who consumed one or more sodas per day were on average 0.7 BMI units heavier than women who consumed less than one soda per day (controlling for demographics and behaviors such as TV viewing and physical activity).¹⁸
- An average adult would need to walk 25 minutes at a moderate pace to burn off the extra calories in one 12-ounce can of soda, or 46 minutes to burn the calories in a 20-ounce soda.²⁵ This is in addition to the recommended 150 minutes per week of physical activity to prevent chronic diseases.²⁶ The majority of adults in NYS do not get the recommended 150 minutes/week of physical activity, so it is unlikely that they will find the time to exercise the additional minutes to burn off extra calories from soda.

Dental Health - Children

- Among young children, aged 1 through 5 years, consumption of sweetened, carbonated soft drinks was associated with an 80-100% increased risk of dental caries.^{27, 28}
- Dental caries is the most common chronic disease of childhood. Untreated caries can impair a child's ability to chew, speak and smile.²⁷ In 2005, about 4,000 New York State children, aged 3 through 5 years, were operated on in a hospital or ambulatory surgical center for treatment of cavities.²⁹

Bone Health- Adults

- A study reported in 2006 by researchers at Tufts University suggests that colas, specifically, may be associated with poor bone health. Among the 1,413 women whose dietary records and bone-density scans they reviewed, those who drank a diet or regular cola at least three times a week over five years had significantly lower bone densities than those who drank cola once a month or less. No such effect occurred with other carbonated drinks, even after researchers factored in intake of calcium from foods. The effect of cola consumption on bone density was attributed to the phosphoric acid which is unique to colas.³⁰

Impact of Reducing Sugar-sweetened Beverage Consumption on Health -

- A pilot study of 103 adolescents (13-18 years of age) who regularly consumed sugar-sweetened beverages, randomly assigned them to either an intervention or a control group. The intervention group received non-caloric beverages to replace sugar-sweetened beverages for a period of 25 weeks. Consumption of sugar-sweetened beverages decreased in the intervention group by 82% and did not change in the control group. Among subjects, whose Body Mass Index (BMI) was in the upper third at baseline, there was a significant difference in the change in BMI between the intervention and control groups. The intervention group's BMI decreased by 0.63 kg/m^2 while the control group's BMI increased by 0.12 kg/m^2 .³¹

Incomplete Compensation from Liquid Carbohydrate (Sweetened Beverages)

- Studies show that when people drink a sugar-sweetened beverage, they don't compensate (i.e., reduce calories consumed from other food sources at the same or subsequent meal) as much as when they consume calories from solid foods or other beverages. Thus, sugar-sweetened beverages tend to provide extra calories in the diet. For example, subjects who ate 450 calories per day for 4 weeks from jelly beans (a solid carbohydrate), reduced their caloric intake from other foods by about the same number of calories and their BMI did not change. When the same subjects drank 450 calories per day for 4 weeks of a sugar-sweetened soda, they did not reduce their daily calorie intake from other foods. Consequently, they consumed an additional 450 calories per day and their weight and BMI increased.³²

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FACT SHEET – OBESITY & CHRONIC DISEASES

Obesity Statistics

- In the past two decades, the prevalence of overweight and obesity increased dramatically among adults and children:
 - In 2005-06, 34.3% of U.S. adults age 20 years and older were obese¹, compared to 15% of adults in 1976-1980.²
 - In 2005-06, 15.5% of U.S. children and adolescents 2 to 19 years of age were obese³, compared to approximately 5% of children and adolescents in 1976-80.⁴
 - In 2003, an estimated 24% of kindergarten through fifth grade students in New York City were obese, compared to 19% of second through fifth grade students in 1990.⁵
 - In 2004, an estimated 21% of third graders in upstate New York were obese, compared to 13% of second and fifth graders in 1987.⁷
 - Based on self-reported height and weight, 60% of adults in New York State are either overweight or obese. Overweight and obesity are more prevalent among African Americans (68.1%) and Hispanics (66.9%) than among Caucasians (60.8%).⁸

Impact on Health

- Moderately obese people have an average life expectancy two to five years shorter than those who are not overweight or obese, while the life expectancy of severely obese individuals is five to 20 years shorter.⁹
- Overweight and obesity are significant risk factors for many debilitating diseases and conditions, including: heart disease, hypertension, diabetes, endometrial, colon and breast cancers, arthritis, sleep apnea, respiratory problems, and reproductive complications.¹⁰
- According to a recent report by NYS Comptroller DiNapoli, New York ranks second among U.S. states in adult obesity-related medical expenditures, with total spending estimated at nearly \$7.6 billion: 81 % of which is paid by Medicaid and Medicare, far exceeding the national average of 52 %.¹¹

Obesity and Cardiovascular Disease

- Overweight and obesity predispose individuals to heart failure and are risk factors for numerous cardiac complications such as coronary heart disease, heart failure, and sudden death:¹²
 - Obesity is associated with a 12% increased risk for coronary heart disease and a 24% increased risk for stroke.¹²
 - The annual rate for sudden cardiac mortality is 40 times higher for obese individuals than for non-obese individuals.¹²

- As BMI increases, average blood pressure and total cholesterol levels increase and average HDL (or good) cholesterol levels decrease. Individuals in the highest obesity category have five times the risk of hypertension, high blood cholesterol, or both compared to normal weight individuals.¹³
- Children age 5 to 10 years old who are overweight are more than twice as likely to have one or more adverse cardiovascular disease risk factors than children who are not overweight (60% vs. 27%, respectively).¹⁴
- Reducing weight positively impacts blood pressure and cholesterol levels:
 - Results from a 2005 study found that weight loss of 15 pounds or more lead to a 28% reduction in risk of hypertension for adults ages 30-49 years and a 37% reduction in risk of hypertension for adults ages 50-65 years.¹⁵
 - Even small amounts of weight loss (5 to 10% of body weight) can have significant health benefits, such as improved glucose metabolism, lipid levels and blood pressure.^{16,17}

Obesity and Type 2 Diabetes

- As BMI increases, the risk of developing type 2 diabetes increases.^{18, 19}
- Overweight is the most important risk factor for the development of type 2 diabetes in youth.²⁰
- As many as 45% of newly diagnosed cases of diabetes in children and adolescents are now type 2 diabetes.²¹
- In New York State, the risk of diabetes increases with excessive body fat. Among adults who are normal weight, 2.9% have diabetes, whereas the prevalence of diabetes increases to 7.8% among adults who are overweight and 16.6% among adults who are obese.⁸
- Weight reduction results in diabetes risk reduction and control. A weight loss of 5 – 10% of total body weight can reduce risk of diabetes by up to 90%, and can improve blood sugar control in those who have diabetes.^{22,23}

Obesity and Cancer

- An estimated 15-20% of all cancer deaths in the United States can be attributed to overweight and obesity.²⁴
- Excessive body fat contributes to increased incidence and/or death from cancers of the colon, breast (in postmenopausal women), endometrium, kidney (renal cell), esophagus (adenocarcinoma), gastric cardia, pancreas, gallbladder and liver, and possibly other cancers.²⁵
- Overweight and obesity are associated with breast cancer recurrence. Weight gain after breast cancer diagnosis may also be associated with poorer outcomes.²⁶
- Overweight and obesity may increase the risk of poor outcomes among resected colon cancer patients and the risk of chemical recurrence in prostate cancer patients.²⁶
- Obese cancer patients are at increased risk for developing problems following surgery, including wound complication, lymphedema and second cancers.²⁶

Obesity and Oral Health

- Obesity is a significant predictor of periodontal disease, especially among individuals age 18 to 34 years.²⁷

Obesity and Tobacco Use

- Both smoking and excessive body fat are independent predictors of mortality, but the combination of current or recent smoking with obesity or a large waist circumference is related to an especially high mortality risk:
 - Obese smokers have a six to eight times greater risk of dying compared with normal weight people who never smoked.²⁸
 - Among smokers with a large waist circumference, the risk of dying was five times greater than among people with the smallest waist circumference who never smoked.²⁸
- Studies suggest that children exposed to cigarette smoke in utero are at risk of becoming obese.²⁹⁻³⁴

Obesity and Respiratory Health

- Among children and adolescents, being overweight is strongly associated with more severe asthma symptoms and increased hospitalizations, independent of age, race and sex.³⁵
- In New York City, among minority inner city children diagnosed with asthma, the prevalence of overweight is significantly higher in children with moderate to severe asthma than among peers with milder asthma.³⁶

Obesity and Women's Reproductive Health

- Excessive weight gain during pregnancy often leads to postpartum weight retention and is a major contributor to lifelong obesity for women.³⁷
- Obesity is associated with menstrual irregularities, abnormal ovulation and infertility.^{38, 39}
- Abdominal obesity is strongly associated with polycystic ovarian syndrome, a combination of infertility, menstrual disturbances, hirsutism, abdominal hyperandrogenism and anovulation.⁴⁰
- Obesity during pregnancy is associated with increased morbidity for both the mother and the child:
 - Obese pregnant women have a tenfold increase in the prevalence of hypertension and 10% incidence of gestational diabetes.⁴¹
 - Obesity during pregnancy is associated with an increased risk of congenital malformations, particularly neural tube defects.⁴²

Obesity and Mental Health

- Obesity is linked to higher rates of depression.⁴³
- Youth who are overweight or obese report increased levels of depressive symptoms and lower levels of self-esteem and body-esteem than their normal weight peers.⁴⁴

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Frequently Asked Questions about the NYS Sugar-sweetened Beverage Tax

Q. What are sugar-sweetened beverages?

A: For the proposed tax, sugar-sweetened beverages are soft drinks that contain more than 10 calories per 8 ounces. They include sweetened water, soda, sports drinks, “energy” drinks, colas, sweetened bottled coffee or tea, and sweetened fruit or vegetable drinks containing less than 70% natural fruit or vegetable juice. Milk, milk products, milk substitutes, dietary aids, and infant formula are exempt.

Q: Why tax sugar-sweetened beverages?

A: Taxing sugar-sweetened beverages is likely to lead to a decrease in consumption, especially among population groups that are most sensitive to price, e.g., children, low income populations, and those with higher intakes of sugar-sweetened beverages. These are the same groups who are most likely to suffer negative health impacts from high sugar-sweetened beverage consumption. A decrease in sugar-sweetened beverage consumption is likely to reduce calorie intake and lead to better weight status. Increasing the cost of sugar-sweetened beverages relative to the cost of healthier beverages (such as water and low-fat milk) may lead to an increase in the consumption of the healthier beverages. A similar tax on tobacco products has contributed to a significant decrease in cigarette consumption and smoking rates, particularly among children.

Q: Why tax only sugar-sweetened beverages? Other foods, like *Twinkies* and *Ding Dongs*, provide empty calories.

A: There is significant evidence linking sugar-sweetened beverage consumption with obesity and other health problems. Studies that follow people for a long time show that people who consume more sugar-sweetened beverages gain more weight. One article that reviewed many studies found that drinking sugar-sweetened beverages had the strongest link with overweight and obesity, more than any other food-related behavior. When people drink a sugar-sweetened beverage, they do not compensate (i.e., reduce their concomitant or subsequent caloric intake) for the additional calories from the drink. So the calories from the drink become “extra” calories.

Q: Aren’t people opposed to a tax on sugar-sweetened beverages?

A: A majority of New York adults support a tax on sugar-sweetened beverages. In a poll conducted by the Citizens’ Committee for Children of New York in December of 2008, 72% of the people polled supported a tax on sugar-sweetened beverages if the revenue raised was to be used to address childhood obesity and to reduce the need to cut services and raise other taxes. However, if the funds were not going to be dedicated to health issues, then only 52% of those polled supported the tax.

Q: How much will the sugar-sweetened beverage tax cost the average New Yorker?

A: Consumption of sugar-sweetened beverages by U.S. adults was about 46 gallons per year per person in 1999-2004. If a person did not change his/her consumption, it's possible that he/she would spend an additional \$59 per year on sugar-sweetened beverages. If one reduced his/her consumption by 10% (as predicted) in response to an increase of one cent per ounce, the cost of the tax would be significantly offset by the savings from purchasing fewer sugar-sweetened beverages. In this case, the net cost impact would be an additional \$18 per year. However, if an adult replaced half of his/her average 46 gallons/year intake of sugar-sweetened beverages (-23 gallons) with equal amounts of tap water (+11.5 gallons) and low-fat milk (+11.5 gallons), he/she would save about \$100 per year.

Q: Do all New Yorkers consume 46 gallons per year of sugar-sweetened beverages?

A: No. This is an average for U.S. adults. Some people do not consume any soft drinks; others consume more than 46 gallons per year. Those who consume the greatest amounts, usually reduce their consumption the most in response to a price increase, and thus save the most money and improve their health the most as a consequence.

Q: Won't the sugar-sweetened beverage tax hurt the poor disproportionately?

A: Sugar-sweetened beverages are a discretionary beverage; they are not needed at all. Soft drinks provide no needed nutrients; they simply add calories to the diet. While surveys in New York State, and in NYC show that people with lower incomes and lower educational attainments drink more soft drinks than those with higher incomes and more education, all New Yorkers would save money by making a switch from drinking sugar-sweetened beverages to drinking healthier beverages, such as low-fat milk and tap water.

Q: Won't the tax increase families' food costs greatly?

A: It would only increase food costs if families continue to buy similar amounts of sugar-sweetened beverages as they did before the tax. If adults continue to consume the average amount of sugar-sweetened beverages, 46 gallons per year, the added cost from the tax would be \$59 per year per person. If they decrease their consumption of sugar-sweetened beverages by 10%, the cost of the tax would be significantly offset by the savings from purchasing fewer sugar-sweetened beverages. In this case, the net cost impact would be an additional \$18 per year per person. If an adult replaced half of his/her yearly intake of sugar-sweetened beverages with tap water and low-fat milk (in equal amounts, i.e., 11.5 gallons per year of each), he/she would save about \$100 per year and greatly improve his/her nutrition.

Q: With reports indicating that obesity rates are starting to level off in children, why is there concern about continuing to address it?

A: Obesity rates in children and adolescents are 3 to 4 times higher than they were 30-40 years ago.

Among elementary school students in NYS, 38-43 percent are overweight or obese; 20-24 percent are obese while an additional 18-19 percent are overweight.

Among low-income children, aged 2-5 years, 32 percent are overweight or obese; 15 percent are obese and another 17 percent are overweight.

One third of children are overweight or obese. Among adults, obesity rates are continuing to increase. Currently 25 percent of New York adults are obese and another 35% are overweight. Adults who are overweight or obese still need help to lose weight and/or avoid gaining excess weight. The Healthy People 2010 goal for obesity rates in adults is less than 15%, and for obesity in children, the goal is less than 5%.

Q: Isn't lack of exercise the real problem in obesity?

A: In terms of weight maintenance, it's much easier not to consume extra calories than to burn them off. For example, an average adult would need to walk 27 minutes (or almost two miles) at a moderate pace to burn the calories contained in one 12-ounce can of soda (150 calories). And this is in addition to the recommended 150 minutes per week of moderate physical activity to decrease risk for chronic disease. It would take 46 minutes of walking to burn off a 20 ounce soda (250 calories). The majority of adults do not meet the recommended 150 minute per week guideline, so it's unlikely they'll find time to walk the additional minutes to cover soda consumption. A 75 pound child (average 10-year-old child) would need to bicycle vigorously for about 30 minutes to burn off a 12 ounce can of soda. The most effective way to reduce weight and maintain a healthy weight is pay attention to both diet and physical activity – eat less and move more.

Q: Won't this tax hurt businesses that sell sugar-sweetened beverages by decreasing revenue?

A: It's likely that some people who would have bought sugar-sweetened beverages will buy a different beverage, for example bottled water, unsweetened tea or low-fat milk. However, if some people choose to drink tap water instead of a bottled sweetened beverage, some businesses may see a decrease in revenue.

Q: Isn't this tax making New York State the "food police?" Why does the government have a right to say what I should eat or drink?

A: There is already a sales tax on foods and beverages with low nutritional value (e.g., soda, candy). The proposed tax does not prohibit people from buying sugar-sweetened beverages. People may choose to buy fewer sugar-sweetened beverages and save money and improve their health by drinking water or low-fat milk, which are not taxed.

Q: Instead of taxing people, why not educate them about the health consequences of sugar-sweetened beverage consumption?

A: Public education campaigns alone are rarely effective in changing behavior. They are most effective when combined with other public health interventions, like price increases, that provide a financial incentive for people to change their behavior. Most people know that soda is not a healthy choice. The cost of an effective public awareness campaign to discourage soda consumption would be quite expensive. The tax creates an environment that encourages people to make healthier choices, in the same way that the tobacco tax discourages people from smoking.

Q: Shouldn't all sodas be taxed, diet and non-diet? Diet sodas are not good for people, either.

A: While drinking diet soda is not recommended, the evidence linking its consumption with poor health outcomes and/or obesity is weaker than the evidence for sugar-sweetened sodas. The most healthful drinks are water and low-fat or fat-free milk.

Q: Won't taxing non-diet soda just encourage people to drink diet soda, which is not really a healthier alternative?

A: With increased public awareness surrounding the tax, we expect people to switch to healthier beverages like water and low-fat milk.

Q: If people do decrease sugar-sweetened beverage consumption, won't that hurt beverage companies, possibly causing lay-offs?

A: The proposed tax is expected to lead to a 10-15% reduction in sugar-sweetened beverage consumption; this would not be sufficient to cause significantly decreased production and lay-offs. Some people will replace sugar-sweetened beverages with alternative beverages, many of which are produced by the same beverage companies. Thus, there may be an increase in demand for healthier beverages, such as water, non-caloric flavored seltzers, and unsweetened ice tea, which would partially compensate for the reduced demand for sugar-sweetened beverages.

Q: Isn't this just a way to increase revenue for the state?

A: While revenue would be generated by the sugar-sweetened beverage tax and used for health related initiatives, the measure is designed to do both--decrease consumption of sugar-sweetened beverages, just as the cigarette tax is levied to decrease tobacco use -- and improve health, as well as provide needed revenue. Revenue generated from this tax will go to the New York State Health Care Reform Act (HCRA) Resources Fund to be used for health care and health related initiatives.

Q: Will this level of tax really cause a decrease in consumption?

A: Two studies show that increasing price can decrease consumption. One completed by the U.S. Economic Research Service found that a 10% increase in the price of soda would lead to an 8% reduction in consumption among low income populations.

In a Norwegian study, increasing the price of soft drinks by 10.8% was estimated to decrease consumption by nearly 7% in the lowest consumption group, by 17% in the highest consumption group, and by an average 9.5% overall. Increasing the price by 27.3% was associated with a drop in consumption of 17% in the lowest use group, 44% in the highest use group, and an overall 24% reduction in consumption across the population.

Q: Isn't the beverage industry opposed to the tax?

A: The beverage industry strives to maximize profits by selling as many sugar-sweetened beverages as possible. They want people to believe that sugar-sweetened beverages do not contribute to obesity or any other health problems. They are expected to be against anything that might decrease consumption and, therefore, their sales' revenue.

Q: How much does New York spend each year on medical care for obesity-related conditions?

A: According to a report by New York State Comptroller DiNapoli, New York ranks second among U.S. states in adult obesity-related medical expenditures, with total spending estimated at nearly \$7.6 billion; 81%, of which, is paid by Medicaid and Medicare, far exceeding the national average of 52%.

Resources on Sugar-sweetened Beverages, Obesity and Health

Soft Drink Taxes: Opportunities for Public Policy

Rudd Report, February 2009

A summary of research around soda taxes, policy suggestions and arguments used by proponents and opponents of soda taxes.

<http://www.iotf.org/documents/RuddReportSoftDrinkTaxFeb2009.pdf>

The Public Health and Economic Benefits of Taxing Sugar-sweetened Beverages

A review of the relationship between sugar-sweetened beverage consumption and health, economic and health benefits of taxing sugar-sweetened beverages, and opposition to and positioning of a tax.

<http://content.nejm.org/cgi/content/full/NEJMhpr0905723>

Sugar-sweetened Beverages Taxes and Public Health

Research Brief, July 2009

Robert Wood Johnson Foundation

A review of detrimental health effects of sugar-sweetened beverage consumption and the possible positive impact of taxing sugar-sweetened beverages on consumption.

<http://www.rwjf.org/pr/product.jsp?id=45828>

Taxing Sugared Beverages Would Help Trim State Budget Deficits, Consumers' Bulging Waistlines, and Health Care Costs

CSPI, September 2009

A discussion of state budget gaps and how a modest tax on sugar-sweetened beverages could help reduce the gaps.

http://cspinet.org/new/pdf/state_budget_report_-_sugar_tax.pdf

The Negative Impact of Sugar-sweetened Beverages on Children's Health

A Research Synthesis, November 2009

Healthy Eating Research: Building Evidence to Prevent Childhood Obesity.

A review of the health implications of sugar-sweetened beverage consumption on children's health, including overweight, obesity and dental caries.

<http://www.rwjf.org/files/research/20091203herssb.pdf>

Dietary Sugars Intake and Cardiovascular Health

A Scientific Statement from the American Heart Association

September 15, 2009

A review of data on sugar consumption, including sugar-sweetened beverages, and poor health outcomes.

<http://circ.ahajournals.org/cgi/reprint/CIRCULATIONAHA.109.192627>

Does Drinking Beverages with Added Sugars Increase the Risk of Overweight? (Research to Practice Series No. 3, September 2006, National Center for Chronic Disease Prevention and Health Promotion, Division of Nutrition and Physical Activity)

A review of studies published through 2006, examining the relationship between sugar-sweetened beverages and weight.

http://www.cdc.gov/nccdphp/dnnpa/nutrition/pdf/r2p_sweetend_beverages.pdf

Liquid Candy: How Soft Drinks are Harming America's Health

A review of soft drink consumption, its health consequences, marketing methods, and recommendations for action.

<http://www.cspinet.org/liquidcandy/>

Bubbling Over: New Research Shows Direct Link between Soda and Obesity

September 17, 2009

A review of self-reported consumption data in California linking soda consumption to overweight, regardless of socioeconomic status.

<http://www.rwjf.org/files/research/20091203herssb.pdf>

Sugar Water Gets a Facelift: What Marketing Does for Soda

September 2009

A discussion of marketing strategies to sell sugared flavored, colored drinks.

http://www.preventioninstitute.org/SA/documents/BMSGFramingBriefSodaMarketing_000.pdf

Teenage Girls Replacing Milk with Soda

Girls Drink More Sodas, Less Milk as They Get Older

A discussion of girls' beverage consumption patterns over time and the relationship between soda consumption and weight.

<http://www.webmd.com/parenting/news/20060224/teenage-girls-replacing-milk-with-soda>

Soda Consumption Puts Children at Risk for Obesity, Diabetes, Osteoporosis, and Cavities

A one-page fact sheet on soda consumption and its negative health impact.

http://www.publichealthadvocacy.org/PDFs/Soda_Fact_Sheet.pdf