

Does Government Have a Role in Curbing Obesity?

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Widespread concern over the prevalence of obesity has led to various proposals to curb what is often referred to as a public health crisis or epidemic. The U.S. government established “Healthy People” goals of 15% or less for adult obesity and 5% for children and adolescents by 2010.¹ Neither goal has been met.

On Feb 9, 2010, First Lady Michelle Obama announced with much fanfare her “Let’s Move” campaign to solve the problem of childhood obesity. One concern is the strain on public budgets. Treatment of obese patients has been estimated to cost \$147 billion in 2008, accounting for 9.1% of all medical spending.²

This commentary presents the obesity data, analyzes proposals to reduce obesity and the associated empirical evidence, and then discusses whether government intervention in this area is likely to improve public health.

Obesity Data

Two main sources of obesity data exist. One is the National Health Examination Survey (NHES) and its successor the National Health and Nutrition Examinations Survey (NHANES) of the National Center for Health Statistics, Centers for Disease Control and Prevention (CDC). The other is the CDC’s Behavioral Risk Factor Surveillance System (BRFSS) surveys.

NHES and BRFSS define obesity as a body mass index (BMI) of 30.0 and above. The 1960–1962 NHES and the following NHANES data indicate obesity was relatively stable over the period 1960–1980, but then rose during the 1980s and 1990s.³

For adult women there was no statistically significant increase in obesity prevalence over 1999–2008. For adult men obesity prevalence rose during 1999–2002, but did not significantly change over 2003–2008. For the most recent period, 2007–2008, obesity prevalence rate was 32.2% for men and 35.5% for women. The 2007–2008 rates for adult men were highest for non-Hispanic blacks (37.3%) followed by Mexican Americans (35.9%) and non-Hispanic whites (31.9%).⁴ For adult women 2007–2008 rates were highest for non-Hispanic blacks (49.6%) followed by Mexican-American (45.1%) and non-Hispanic whites (33.0%). NHANES data for infants and toddlers (birth to 2 years) and children and adolescents (2–19 years) for five time periods over 1999–2008 showed no significant increases in BMI over the period, except in 6–19-year-old boys at the highest BMI level.⁵

CDC’s BRFSS survey data is available annually over the period 1997 to 2008. The data is consistent with NHANES data showing obesity prevalence increasing less after 2000. Among adults, obesity prevalence increased by 3.1 percentage points from 1997 to 1999, 1.9 percentage points from 2000 to 2002, 1.5 percentage points from 2003 to 2005, and 1.6 percentage points from 2006 to 2008.⁶ BRFSS survey data is similar to the NHANES data regarding prevalence by race/ethnicity.

CDC’s Pediatric Nutrition Surveillance System (PedNSS) survey found that for low-income, preschool-aged children participating in federally funded nutrition programs, the prevalence of obesity for these children aged 2–4 years increased from 12.4% in

1998 to 14.5% in 2003, but then stabilized at 14.6% in 2008.⁷ These survey findings are consistent with the NHANES results for children.

In sum, the two major sources of obesity data indicate that the prevalence of obesity was relatively stable from 1960–1980, then rose significantly during the 1980s and 1990s, but stopped rising significantly around 2000–2003 for most groups. Obesity prevalence is greatest for non-Hispanic blacks, followed by Hispanics and then non-Hispanic whites.

Research on Obesity

Many different causes for obesity have been advanced, but the role of sugar-sweetened beverages (SSBs) attracts the most attention. The focus on SSBs stems from casual observation that during the 1980s and 1990s SSB consumption was positively correlated with prevalence of obesity.^{8,9} However, per capita per year consumption of caloric carbonated soft drinks more than doubled from 13 gallons to 29.9 gallons from 1960–1980, a period during which obesity prevalence was relatively stable.¹⁰ USDA data on per capita consumption also indicate caloric carbonated soft drinks, caloric sweeteners, and added sugars all peaked in 1999 and then declined through 2008, during which time obesity prevalence did not decrease. Per capita consumption of carbonated soft drinks peaked in 1998 and then declined 15% through 2009.¹¹ In sum, casual evidence indicates SSB consumption has been falling rather than rising, thus making it unclear whether it poses a public health problem, even if it actually does cause obesity.

Empirical studies, however, do not clearly demonstrate that SSB consumption causes obesity. A review article of the relationship between SSB consumption and BMI found 16 studies that showed a significant positive relationship, 10 studies that did not show a significant positive relationship, and four studies that had mixed results.¹² Another review of studies examining the relationship between soft drink consumption and body weight found eight studies showing a significant positive relationship, 15 studies showing no significant positive relationship, and two studies with mixed results.¹³ Significant relationships, it should be noted, indicate correlation rather than causation.

Despite lack of evidence that these measures will reduce obesity, many states have begun taxing sodas at higher rates than other types of food and beverages, and banning soda sales at public schools. Advocates argue that taxing soda will significantly reduce its consumption and also generate tax revenues to fund public health programs aimed at reducing obesity.^{14–16} Empirical research on the effect of soda taxes on consumption and obesity is very scarce. A recent study found that tax hikes on soda lowered adult BMI, but the magnitude of the effect was trivial.¹⁷ A one-percentage-point increase in the tax rate led to a decrease of only 0.003 BMI points. A childhood longitudinal study of young schoolchildren found no relationship between soda taxes and weight gain.¹⁶

Public health researchers also believe that schools should adopt policies aimed at restricting or banning SSBs. A review of state legislation or regulations requiring or recommending beverage standards for schools found that 34 states had adopted policies restricting school sales of SSBs.¹⁸ Five states were identified as having enacted strong policies, and 16 states had enacted no restrictive policies. Only one strong-policy state, but six no-policy states, showed declines in percentages of children aged 10–17 who

were overweight.¹⁹ Empirical evidence thus provides little support for the view that restricting sales cause weight loss or reduction in BMI.

There is also little evidence to support commonly held views claiming that calorie labeling laws lead consumers to purchase lower-calorie meals. A study of New York City's 2008 law on posting calories in restaurant chains examined how menu calorie labels influenced fast food choices.²⁰ Information on patrons of fast-food restaurants in New York communities was compared with that on patrons in Newark, New Jersey, a city without labeling laws. While 28% of patrons in New York said the information influenced their choices, researchers could not detect a change in calories purchased after the law.

Finally, there is little evidence that previous government intervention has lowered obesity of the poor. The U.S. Department of Agriculture concludes that, despite many low-income individuals being both obese and recipients of one or more food assistance programs, the research literature does not show that programs have lowered obesity.²¹ The same review, however, cites two studies that find a positive correlation between the Nutritional Assistance (food stamp) program and obesity in women, although neither study tested for a causal connection.^{22,23} Good intentions aside, we should be skeptical of the notion that expansion of government programs will somehow lower obesity when research has yet to prove that past programs have not actually worsened our obesity problem.

Implications

Waiting for evidence is often not the strong suit of public health advocates convinced they can solve public health crises they believe are real. But there is little evidence that SSBs cause obesity or that higher soda taxes and more school restrictions effectively mitigate obesity problems. California's Santa Clara County Board of Supervisors proposed forbidding restaurants to give away free toys with high-calorie or high-salt meals, despite the fact that there was no evidence that such a measure would curb obesity.²⁴

Proposed interventions will not affect economic factors connected to weight gain. Technological change has been shown to lead to a more sedentary workforce prone to weight gain.²⁵ Another study concludes that improvements in food-storage technology have reduced time costs of preparing meals, leading to more food and beverage consumption.²⁶ It is also likely that recent innovations in treatment of obesity-related illnesses have caused some people to be less concerned about weight.

Unintended adverse effects of government intervention are given short shrift in this debate. Government intervention makes it appear that the "eat less, exercise more" adage is no longer an effective course for controlling weight. Government intervention sends the signal that individual responsibility or motivation is now being replaced with government responsibility over weight control of its citizens. Unfortunately, substituting government for personal responsibility never works out as planned.

Another adverse consequence is that soda taxes mostly alter the behavior of casual drinkers, thus again showing a mismatch between intentions and consequences. Research has shown that interventions aimed at lowering smoking and alcohol consumption mostly affect casual smokers and light drinkers because they have the least interest in smoking and drinking; that is, they are most sensitive to price changes stemming from tax hikes. There is no reason to suspect anything different with soda taxes, thus calling into question the rationale behind forcing casual soda drinkers to drink less soda, while at the same time causing little change in frequent soda drinkers.²⁷ It should also be remembered that evidence does not clearly show that soda even causes obesity.

It is sheer folly to single out a specific food or beverage as the "cause of obesity" when common sense indicates that obesity is a product of genetics, hormones, food choice, exercise or lack thereof, and the basic equation: Calories consumed minus calories expended = weight gain or weight loss. If one eliminates soda pop from his diet, while consuming 10,000 calories per day and expending 1,000

calories per day in exercise, that individual will gain weight. Moreover, if government interventions somehow reduce soda consumption, it is likely that substitution will take place, such as eating more food or simply adding more sugar to home-brewed iced tea. Effects on weight are thus ambiguous at best.

Intervention also crowds out market-based policies that are more effective and efficient than government in reducing obesity. Effective policies are ones that cause individuals to personally bear costs and reap benefits of choices they make. Obese individuals are known to have higher medical expenses and earn less income.^{28,29} Incentives already exist for employers to reward workers who effectively control their weight and, unlike government interventions, these directly target obese workers. It has been estimated that one-third of U.S. companies offer, or are planning financial incentives for employees to lose weight.³⁰ At least one Internet site gets corporate sponsors to give cash rewards to obese individuals who significantly lower their BMI.³¹

This is not to argue that employer-provided health care benefits somehow solve workers' weight problems. Employers have problems rewarding workers who control their own weight when workers do not understand that employer-provided health plans are not "free." Health benefits are part of workers' compensation and, while employers understand cost-savings associated with lowering obesity, workers operate under weaker incentives when they mistakenly believe insurance is "free." Unfortunately, employer rewards or "bribes" for controlling weight are similar to government interventions in that they lessen workers' personal responsibility for their own health as they become more dependent on employers to deem what is best for them. Substituting either government or employer responsibility for personal responsibility for one's weight is likely to worsen public health.

Unfortunately, government keeps getting in the way of market-based solutions. A recent study found that obese workers who receive health insurance through their employer earn lower wages than their non-obese colleagues, as might be expected from the extra medical costs associated with obesity.³² But recent federal health legislation is unlikely to interpret obesity as a "lifestyle risk factor" such as tobacco, thus making it more difficult for health insurance companies or employers to penalize obesity through higher insurance premiums or lower wages. Legislation also eliminates pre-existing exclusion clauses that previously allowed insurers to deny or charge more for coverage to the obese, thus again lowering market-based penalties for being obese. Moreover, there is a higher prevalence of obesity in blacks than in whites, and in women than in men, making it even more unlikely that government will allow market-based solutions that penalize blacks and women more harshly for obesity than whites and men, owing to concerns about race or gender discrimination.

Lower insurance premiums for those who control their weight are mostly an incentive for individuals who own and pay for their own insurance policies—a small minority among the many with employer-provided and government plans. Individuals feel less personal responsibility for their own health when they perceive that government or employers are footing most of their bills. "Community rating" lessens personal responsibility for health as well. Community rating exists when everyone in insurance pools pays about the same premium, irrespective of most behavior.

Government's calculated movement toward downplaying personal culpability can also be expected to create new social stigmas in their war on fat people. Public health advocates are unlikely to be very good at determining how to pressure the overweight into becoming slimmer individuals as they attempt to "denormalize" obesity. Perhaps they will forbid overweight actors to appear in movies and on television, or not allow scenes to be filmed at fast-food restaurants, just as public health advocates rally against showing actors smoking in movies and on television. Similar media campaigns designed to lower smoking have been found to be of little use, and there is little reason to believe anti-

obesity campaigns will fare much better.³³ Of course, individuals receiving public funds to administer and produce anti-obesity campaigns gain income at the expense of taxpayers.

Public health advocates hope to secure substantial taxpayer funding for their war on obesity. First Lady Michelle Obama has called for a federal spending increase of \$1 billion per year for 10 years through re-authorization of the Child Nutrition Act. Her “Let’s Move” campaign calls for revamping nutritional labeling of products by the U.S. Department of Agriculture, improving nutritional standards of the National School Lunch Program, increasing children’s opportunities for physical activity, and improving access to high-quality foods in all U.S. communities.³⁴ The motto “Pregnancy and Infancy Onward” clearly worries tobacco-control advocates who fear their programs will be forgotten in order to fund large-scale government intervention into obesity.³⁵

Soda tax proponents claim revenues are needed to fund statewide efforts designed to curb obesity. The Yale Rudd Center for Food Policy and Obesity offers a handy website that calculates revenues from soft drink taxes. A one cent per ounce tax on SSBs (soft drinks, fruit beverages, sports drinks, tea, flavored water, energy drinks, and coffees) yields an estimated \$14.9 billion state government windfall in 2010.³⁶ Experience with tobacco taxes demonstrates that roughly 10% of tax dollars flow to control programs, with the rest funding unrelated government programs.³⁷ Funds that do flow to obesity-prevention programs are likely to be as ineffective as those spent on tobacco control.³⁸ Experience with tobacco control also predicts the CDC will be more than happy to provide states with minimum spending targets to help state governments’ obesity control programs capture a growing share of public spending.³⁸

Conclusions

We predict government intervention will make obesity worse as it crowds out market-based solutions that effectively tie weight loss to personal responsibility, higher wages, and lower insurance premiums. Government never mimics market solutions, and there is no reason to suspect otherwise in the case of controlling obesity. Government intervention thwarts market-based solutions developed by businesses with keen interests in reducing the economic harm obesity imposes on them. Government bureaucrats cannot single out obese individuals, but must uniformly apply policies to both the obese and non-obese alike, based on the false assumption that all obesity results from the same, fully understood cause.

The main effect of the campaign will be to extract more money from taxpayers and to expand government.

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