



Ethics and Obesity Prevention

Ethics and Obesity Prevention: Ethical Considerations in 3 Approaches to Reducing Consumption of Sugar-Sweetened Beverages

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Obesity and overweight prevalence soared to unprecedented levels in the United States, with 1 in 3 adults and 1 in 6 children currently categorized as obese. Although many approaches have been taken to encourage individual behavior change, policies increasingly attempt to modify environments to have a more positive influence on individuals' food and drink choices.

Several policy proposals target sugar-sweetened beverages (SSBs), consumption of which has become the largest contributor to Americans' caloric intake. Yet proposals have been criticized for unduly inhibiting choice, being overly paternalistic, and stigmatizing low-income populations.

We explored the ethical acceptability of 3 approaches to reduce SSB consumption: restricting sale of SSBs in public schools, levying significant taxes on SSBs, and prohibiting the use of Supplemental Nutrition and Assistance Program (formerly food stamps) benefits for SSB purchases. (*Am J Public Health*. Published online ahead of print March 13, 2014; e1–e9. doi:10.2105/AJPH.2013.301708)

OVER THE PAST 20 YEARS, obesity and overweight have increased steadily among Americans. Labeled a national epidemic,¹ obesity affects 1 in 3 adults and 1 in 6 children.^{2,3} Obesity is associated with stroke, diabetes, and heart disease,⁴ with estimates of approximately \$150 billion to \$200 billion in health care costs annually.^{5,6} Nearly half of non-Hispanic Blacks, 40% of Mexican Americans, and 34% of non-Hispanic Whites are obese⁷; from the early 1990s to mid-2000s, the prevalence of obesity increased in adults at all income and education levels.⁸ Simultaneously, more Americans are relying on federally funded nutrition assistance programs, with 14.5% of US households labeled food insecure (defined by the US Department of Agriculture as a household-level economic and social condition of limited or uncertain access to adequate food).^{9,10} National conversations about obesity are occurring as data show a link, for so many Americans, between obesity and food insecurity.^{11,12} Interventions for obesity must balance improvements in nutrition with improvements in food access, affordability, and availability.

Numerous initiatives have aimed to encourage individuals to control

their weight and make healthier choices. Food package labeling, required in 1990; the US Department of Agriculture's 1992 food guide pyramid—replaced in 2011 with “MyPlate”; and Michelle Obama's “Let's Move!” campaign achieved significant visibility. In the private sector, \$60 billion is spent annually in the diet industry, a breathtaking investment in individual behavior change.¹³ Yet, whereas obesity prevalence was less than 15% in all states in 1990, by 2010 every state had prevalence of at least 20%.⁴ Even with recent data indicating some possible stabilization of these trends, the rapid change in obesity rates over the past several decades¹⁴ suggests that obesity, like tobacco and motor vehicle safety, may require interventions beyond those targeting individual behavior change.

Several efforts have sought structural or “environmental” changes, including required calorie menu-labeling, limiting proximity of fast-food restaurants to schools, banning trans-fats in restaurants, and limiting high-caloric, low-nutrient food marketing to children.¹⁵ These policies share a view that environments should be organized to make the healthy choice the easier choice.

Whereas academic literature increasingly examines political and public health considerations in obesity prevention policies, less scholarship has addressed the ethical implications of different options.^{16–18} Debates over obesity prevention proposals are, however, fueled by ethics considerations, with criticisms including assertions that such proposals unduly inhibit choice, are overly paternalistic, or stigmatize low-income populations.^{6,19,20} In this article, we review what ethics demands of public health prevention policies. We then explore the ethical acceptability of 3 obesity prevention strategies aimed at reducing consumption of sugar-sweetened beverages (SSBs): (1) restricting sale of SSBs in public schools, (2) levying significant taxes on SSBs, and (3) prohibiting the use of Supplemental Nutrition Assistance Program (SNAP; formerly food stamps program) benefits for the purchase of SSBs.

ETHICS AND PUBLIC HEALTH PREVENTION PROGRAMS

Public health programs are put forward in recognition that health is a fundamental good that



governments have a responsibility to both protect and promote. Such investments also reflect the efficiency that certain health problems “can be averted or lessened only through collective actions aimed at the community.”^{21(p20)} The acknowledgment of government’s responsibility for public health is underscored by the existence in all 50 states not only of state health departments but also of “police powers”—authority delegated by states to these departments to confine individuals, close restaurants, require immunizations, set standards, and otherwise implement laws and policies to protect the public’s health.²²

Such authority and responsibility, however, invoke longstanding debates regarding the extent of governmental reach to promote health. Public health must balance its authority to respond to existing health threats or narrow health disparities against other compelling interests to allow individuals the freedom to make the choices they value. Chief concerns of public health ethics have been outlined elsewhere,^{23–26} with frameworks generally asserting the moral importance of advancing public health benefit and promoting social justice while minimizing threats to liberty, privacy, and social and physical harms. We present a short summary of 4 well-articulated considerations of public health ethics from existing literature; we then introduce 2 additional considerations that focus more specifically on moral duties of governments that we believe figure importantly in an ethics analysis of obesity prevention policy proposals:

1. *Achieve public health benefit:*

Public health policies, programs, and recommendations should be structured to promote important public health benefits or reduce important public health harms; furthermore, they should be implemented only when sound evidence suggests that their specific approach will be successful. Public health interventions, then, must reduce threats or foster health-promoting environments through data-driven strategies that can have a positive impact on morbidity and mortality.

2. *Minimize meaningful burdens and harms:*

Public health programs should constrain meaningful liberties as little as possible and minimize the risk of other important harms or burdens, including social stigma, physical side effects, financial burdens, and opportunity costs. Risks and burdens may be reduced through strategies such as public disclosure, opt outs, confidentiality protections, and financial subsidies. Furthermore, proportionality requires programs whose burdens remain high to provide greater benefits; related, the quality and magnitude of evidence supporting a program’s purported benefit should increase when risks or burdens are greater.

In honoring this consideration, distinctions should be made between burdens, harms, and liberties central to well-being or self-determination and those that are not.²⁷ Powers et al. summarized how J. S. Mill

made this distinction, differentiating liberties to make “consequential life choices,” such as whom to marry or control over one’s body and mind, from liberties to make

routine choices in daily life [that] when interfered with by the state may be irksome, inefficient, ill-advised and foolish, [but] not all are of the sort that undermine one’s ability to lead . . . a self-determining life.^{27(p11)}

3. *Reduce morally relevant inequalities and promote justice:*

Public health interventions cannot disproportionately burden or benefit specific, targeted groups, unless this reduces preexisting inequalities. Furthermore, targeting of programs should avoid inadvertent negative effects such as stigma or threats to dignity. Public health commitments to social justice go further, however, requiring interventions to address conditions that impede well-being (including health), and intervening with special moral urgency to address conditions that particularly impede the life prospects of certain groups relative to others. Indeed, a central

role of public health, grounded in social justice, is to draw attention to any aspect of the social structure that exerts a pervasive and profound effect on the development and preservation of health.^{28(p83)}

4. *Ensure fair procedures and accountability:* Especially when stakes are high or disagreements important, procedural justice demands—especially for more contentious programs, policies, or recommendations—the

opportunity for public input. Additional accountability is achieved through mandated program evaluations, made publicly available, and through periodic revisions, as needed, of broadly issued guidance documents. That public health agencies have a responsibility to advocate programs that further the public’s health is clear, but when a program’s approach challenges other important values, or where evidence supporting a new program is more limited, claims that the government is acting to promote the public good may be on shakier ground. In such cases, public involvement will be important, as will transparent evaluations with policy changes resulting, as needed, from emerging evidence.

These 4 considerations, in different forms, appear in various frameworks and articles in public health ethics. We offer 2 additional considerations that we believe also are central to public health ethics—and to the analysis of obesity prevention policy options—but that are more novel, at least in not being articulated in existing frameworks. Both focus on the role of government in public health.

5. *Align government policies and programs with evidence-based agency guidelines:*

Considerations 1 through 4 assert that government agencies should develop programs, policies, and guidelines to further public good, and also that such programs or guidelines must meet the tests of being evidence-based,



rigorously vetted, and socially just. Consideration 5 goes further, suggesting that when a government agency issues evidence-based recommendations for the public, that agency's own practices, and the programs they fund—as well as all other policies, programs, and practices throughout that government—should be consistent with the authorized guidelines unless there are compelling reasons not to do so. Rather than simply insisting upon government coherence for its own sake, this consideration urges public entities to model the implementation of government agency recommendations, both reinforcing their impact through multiple and rippling venues, and potentially averting cynicism that could result from government programs being blatantly at odds with governmentally sanctioned recommendations and guidelines. Having public programs and activities be consistent with guidelines would also accomplish, informally, widespread “piloting” of recommendations across varied contexts and jurisdictions, providing a check on efficacy and acceptability of government guidance and allowing modifications based on experience.

To illustrate, if the Department of Energy recommended that the public replace traditional light bulbs with energy-efficient ones, consideration 5 would result in the Department of Energy creating internal policies to use

energy-efficient light bulbs in all Department of Energy buildings, thereby modeling implementation of guidelines for the public. At its fullest, consistency as defined in consideration 5 would go further, requiring all government buildings, not just those whose missions are related to energy, to use such bulbs. Critically, this consideration becomes defensible only when government recommendations are developed with high standards of rigor, evidence, public accountability, and impact evaluation—both for scientific validity and for outcomes such as feasibility, acceptability, and fairness.

6. *Recognize symbolic relevance:*

This final consideration recognizes that certain institutions take on particular symbolic importance in society, by virtue of the populations they serve or the missions they fulfill. Public schools and the US Department of Veterans Affairs, for example, have special symbolic relevance because of their roles as stewards or caretakers for vulnerable and specially valued populations. The symbolic value of certain institutions in our society may heighten these institutions' responsibilities to act in morally exemplary ways.

One might further argue that symbolic relevance also applies to public institutions more generally. That is, it becomes symbolically important how government entities conduct themselves and what public institutions stand for. For example, we would likely reject proposals for our governments

to raise revenue by selling tobacco or alcohol on grounds that governments ought not be symbolized by encouraging the use of such products, even when these products are legal and widely sold by private groups.

SUGAR-SWEETENED BEVERAGES AND OBESITY PREVENTION

With these 6 considerations, we examine 3 interventions designed to reduce consumption of SSBs: (1) restricting the sale of SSBs in K–12 public schools, (2) implementing a significant tax (\$0.01 per ounce or 20% sales tax) on SSBs, and (3) prohibiting the purchase of SSBs with SNAP benefits.

We focus on SSBs because they are the largest single contributor to Americans' caloric intake, accounting for 12% of total daily calories among adults and up to 14% among youths.²⁹ On average, SSB consumption contributes 295 kilocalories per day among those who drink at least 1 SSB per day²⁹ and contributes 33% of the added sugars in our diet.³⁰ Furthermore, data increasingly indicate that liquid calories are less satiating, thus often adding to total caloric intake, rather than substituting for calories from solid food, suggesting that limiting SSBs may be an effective strategy to lower total caloric intake.^{31,32} Finally, unlike many other consumables associated with obesity, SSBs have absolutely no nutritional value—they could be eliminated from the diet without compromising nutritional health. We use here

the definition of SSBs provided by Bleich et al., that SSBs include soda, sport drinks, fruit drinks and punches, low-calorie drinks, sweetened tea, and other sweetened beverages.²⁹

Restricting the Sale of SSBs in K–12 Schools

The National School Lunch Program (NSLP), the first federal nutrition assistance program, was implemented in 1946 and now operates in more than 101 000 public schools, providing nutritious lunches to more than 31 million children each school day.³² In school year 2010–2011, more than 20 million of these students belonged to households with incomes so low that they qualified for free or reduced-price meals.³³ The NSLP meals must align with the national Dietary Guidelines for Americans.³⁴ The NSLP also forbids the sale of a set of restricted foods that have minimal nutritional value, including SSBs, but only where and when the regular lunch is served. However, SSBs remain available for purchase during snack periods and other off-meal hours from à la carte cafes, vending machines, student stores, and at sporting events, and also during meal times if sold from locations (e.g., snack bars or vending machines) that do not also offer reimbursable meals. The proposal we examine—similar to the rule proposed by the US Department of Agriculture in June 2013, as required by Congress's Healthy, Hunger-Free Kids Act of 2010³⁵—would exclude the sale of SSBs on school premises at all places and times.



Evidence is emerging that prohibiting the sale of SSBs in schools is effective for reducing overall SSB consumption among children.^{36–40} With this evidence, what becomes critical to our analysis is how fundamental the liberty is, specifically for schoolchildren, to have regular and ready access to SSBs. Even if drinking SSBs were viewed as an important liberty, the restrictions posed by this proposal are relatively small as children are still permitted to bring SSBs from home and to consume SSBs outside school. Restricting sales of SSBs in K–12 schools scores well on fairness grounds because the policy would apply across school populations and jurisdictions without regard to income or background; it would be important to evaluate going forward any unforeseen, disparate impacts of the policy on consumption or obesity rates between wealthier and poorer children.

Consideration 5, espousing that governmental entities should follow agency guidelines, would require all consumables sold in public schools to be consistent with the Dietary Guidelines for Americans. The Dietary Guidelines are published every 5 years jointly by the US Department of Health and Human Services and Department of Agriculture,³⁴ both to inform citizens how best to eat a healthy diet and to “[aid] policymakers in designing and carrying out nutrition-related programs, including Federal food, nutrition education, and information programs.”^{34(pix)} The guidelines specifically admonish individuals to reduce consumption of SSBs.³⁴ Consideration 5 would broaden the reach of the Dietary Guidelines

within schools, beyond the long-standing requirement that the NSLP be consistent with the guidelines, to more expansively require public schools to sell—anywhere, anytime—only those foods and drinks consistent with the guidelines.

Reinforcing the acceptability of such a policy option, we assert, is the important “symbolic relevance” of public schools in our society. As the daily and public guardians of our children, schools have a heightened responsibility to uphold and model standards in many domains, consistent with broad social values and goals.^{41,42} These expansive goals go well beyond those of academic achievement to include strategies to enable children to succeed and be good citizens as adults. Public schools, for example, often institute requirements for community service, have antibullying policies, implement school-wide recycling programs, and require health education. Even if we, as parents, do not meet these same standards of behavior, decorum, diet, or service to others, we may rightly expect our schools, as the public stewards and guardians of our children, to uphold and model them. Because schools act in loco parentis, the law confers broad discretion on schools to set rules for behavior and to punish infractions. Prohibiting the sale of SSBs in public schools is consistent with a view that schools’ special and symbolic relevance requires them to serve—and to model serving—healthy foods to our children. Of note, the Healthy, Hunger-Free Kids Act of 2010, incorporating the spirit of our consideration 6, recently provided new authority to US Department of

Agriculture to regulate all foods and beverages sold outside the NSLP anywhere on school grounds any time during the school day.

Taxation of Sugar-Sweetened Beverages

Several states and jurisdictions have instigated, or considered, increased taxes on SSBs, both for obesity prevention purposes and to generate revenue.^{15,43} The model discussed here requires the producer or distributor of SSBs to pay an excise tax of 1 cent per ounce or the consumer to pay 20% sales tax. States that currently tax SSBs do so at much lower rates, and their impact on obesity has been relatively small.⁴⁴ The high effectiveness of tobacco taxation came only with significant rate increases; tobacco taxes in high-income countries now constitute more than 50% of the cost per pack.⁴⁵ Experts suggest that the rate needed to decrease consumption, body mass index, and obesity rates is 1 penny per ounce or 20%.^{46,47} Numerous models project that a tax of this magnitude would reduce consumption from approximately 10 kilocalories per person per day⁴⁸ to as much as 50 kilocalories per person per day,⁴⁹ depending on the income level of the population, the definition of SSB, and the degree of substitution predicted to occur. Although it is a seemingly small reduction, it produces a significant population-level impact from a single intervention, and would likely have a more dramatic effect on individuals who consume the highest quantities of SSBs.⁴⁸ That taxation also generates revenue for obesity prevention, health,

or other public programs becomes an ancillary and popular benefit of SSB taxation.

Regarding liberty interests, taxes reflect the preferences of a society valuing free choice, opting for disincentives rather than prohibitions, with SSBs remaining widely available on the market. Taxing products at differential rates allows governments both to exert mild influence concerning products or practices it wishes to encourage or discourage (such as tax credits for energy-efficient products or tax increases for alcohol) and to acknowledge when items (such as yachts) are deemed luxury items, unnecessary for a healthy, sustained, or meaningful life.^{50–52} Food is of course necessary for sustained and meaningful life, and most states tax most foods at lower rates or exempt them from sales tax altogether.⁵³ Taxing SSBs at higher rates reflects a government view that consumption of SSBs may be counter to the public interest in promoting health or, at very least, treats SSBs as a non-essential item.

In terms of fairness, although sales taxes apply to all individuals, they are regressive. Regressive taxation becomes most troubling from a fairness perspective when applied to basic necessities—such as clothing, housing, or food. Sugar-sweetened beverages, containing no nutritional value, are not a basic necessity. Considerations of fairness further favor that taxes on SSBs might include both sales taxes and excise taxes, assuming that at least some portion of an excise tax would be absorbed by SSB distributors (rather than wholly by consumers), transferring



some economic burden to those who enable and benefit from high levels of SSB sales. Furthermore, excise taxes, to the extent they were passed to the consumer, would be reflected in the price of the SSB, serving as a greater disincentive to the customer when making a selection, in contrast to sales taxes, which are added to the price at the register after selections have been made.⁵⁴ Consideration 5 also would support taxation because it would express government adherence, more holistically, to one of its agencies' recommendations as articulated in the Dietary Guidelines.

Prohibiting SNAP Benefits for Purchase of SSBs

The federal food stamp program was established in 1964 to "safeguard the health and well-being of the Nation's population and to raise levels of nutrition among low-income households."⁵⁵ Now known as SNAP, the program served more than 47 million people in 2013.^{56,57} Approximately one third of SNAP participants have some amount of earned income, although only 17% have earned income above the federal poverty level. Although households receiving SNAP benefits are expected to spend some of their other income on food, it is not known to what extent they do.⁵⁷ Benefits are delivered through a debit card to low-income households that meet specific eligibility requirements. SNAP covers almost all foods, excluding hot prepared foods, alcohol, and nonfood items including cigarettes, diapers, and paper goods.⁵⁷

Although it is explicitly intended to improve nutrition, SNAP has become a critical source of income support to low-income people. Nearly 40% of SNAP households had zero net income in 2010.⁵⁶

Several states, including California, Florida, Missouri, Wisconsin, and Texas, have proposed policies to exclude SSBs from eligible SNAP purchases.¹⁵ Data are unavailable whether this policy would reduce SSB consumption, as even pilot programs have never been authorized. The absence of data to demonstrate efficacy invokes, and perhaps fails to satisfy, consideration 1, which calls for an evidence base before government interventions are undertaken. Excluding SSBs from SNAP benefits limits SNAP recipients' liberty to use SNAP benefits to purchase SSBs, although, as with SNAP bans on alcohol and cigarettes, recipients could still buy SSBs with other, albeit limited, funds.⁵⁸ Furthermore, as will be discussed in greater detail, not all liberties are morally equivalent: some are essential for well-being and self-determination whereas others simply allow access to particular market goods.²⁷

A far greater ethical concern is the justice infringement of implementing an SSB ban that targets SNAP participants exclusively, without imposing a similar restriction across other government programs, thereby singling out poor persons for what is a more pervasive problem. Although average adult consumption of SSBs is higher among low-income individuals,^{29,59,60} and low-income women have higher rates of

obesity,⁸ only 20% of obese adults have incomes below 130% of the federal poverty level⁸ and, of course, many SNAP recipients are not obese.⁶⁰ But most troubling, a SNAP exclusion, implemented alone, sends a public policy message that poor people require government intervention to manage their food choices whereas higher-income persons do not.

Similarly, considerations 3 and 5 would endorse eliminating SSB purchase with SNAP benefits only if implemented in the context of a widespread policy of consistent implementation of the Dietary Guidelines across government programs. And although requiring all government programs or policies to be consistent with Dietary Guidelines could be justified by the public health benefit such widespread implementation likely would achieve, it is commitments to social justice that more deeply underpin consideration 5. Centrally, we assert that it is a moral responsibility of government, founded in social justice, to create across the multiple and varied venues where government operates or funds activity, the conditions that facilitate health-promoting behavior. As such, targeting SNAP participants for the ban, without also requiring consistency with the Dietary Guidelines more broadly across government programs and expenditures, means that a SNAP ban on SSBs will not pass ethical acceptability on these grounds.

It is important to note, however, that programs targeting SNAP beneficiaries with incentives to increase their purchase of healthier foods, such as fruits and

vegetables, do pass ethical muster. The success of these "alternative" approaches has been extremely instructive, for example increasing SNAP recipients' consumption of vegetables when double-value SNAP coupons were issued for fruit and vegetable purchases at participating farmers' markets.⁶¹ Encouraging healthful food purchases through a respectful strategy such as double value at local markets responds to a stated need, increases public health benefit, and meets a fairness test in terms of providing an additional, targeted benefit to those in greatest need. Also, because our current political landscape is characterized, in part, by a public that is increasingly disturbed by taxpayers subsidizing soda purchases for SNAP recipients and then, later, finding themselves at risk for subsidizing the costs of associated obesity-related health care needs, there may be political benefit in SNAP identifying and employing strategies to improve the health and nutrition of SNAP recipients in ways that are effective and consistent with dietary guidance. But principles of fairness require that these strategies respect and safeguard, rather than jeopardize or diminish, SNAP participants' liberty and dignity.

FURTHER ANALYSIS

The existence of federal, state, and local departments of health underscores our public commitment to safeguard the public's health and to ensure conditions in which people can be healthy.^{21,62} This focus on ensuring healthful conditions is expressed in the



mission statements of several state health departments—for example, Alabama, Oklahoma, West Virginia, and Connecticut. Long-standing debate in ethics, however, asks how far government should go in fulfilling these commitments to protect our health, with the concomitant duty to curtail human liberties no more than necessary. Using the 6 considerations outlined previously, we have analyzed 3 different obesity prevention policy options in terms of their ethical acceptability, discerning when public health benefit does or does not justify any loss of personal liberty and when policies strengthen or weaken public health commitments to social justice.

All obesity prevention policies—including the 3 discussed here—may face, to differing degrees, questions regarding their impacts on valued personal liberties. Such questions are important, and yet we offer 3 challenges to whether, or the degree to which, obesity prevention policies actually do limit our liberties. Two of these challenges examine the degree to which our eating behavior—absent any such public policy intervention—is truly free and unconstrained, and the third explores the nature of the liberties at risk for being limited.

Challenge 1

The first challenge we raise is whether our consumption behavior, absent policy intervention, is truly free and unconstrained. Research studies have revealed that our ordinary eating behavior, absent any public policy intervention, may be more constrained

than we sometimes imagine. Data increasingly highlight how sensitive our individual eating behavior is to innumerable, even small, external influences in our environment. For example, the people with whom we eat,^{63,64} the size of our plates,⁶⁵ the cost of our snack options,^{66,67} the location of foods,^{68,69} and many other seemingly benign circumstances all influence what and how much we eat.^{70,71} It is thus difficult to claim that obesity prevention policies would introduce for the first time a constraint on our choices, or that policies that tax, eliminate from school environments, or alter the labeling or container size of what we eat or drink, would be the only, or even the major, constraints or influences on what we consume. Indeed, Barnhill and King described that to act autonomously requires not only the freedom to make choices, but also “the psychological capacity to make choices and act on them.”^{72(p118)} Our external environment already clearly plays on our psychological capacity to make healthy choices, even when we have the freedom in a more narrow sense to make any number of consumption choices. None of this is to say that our decisions about what or how much we eat are not valued by us as individuals, that we do not have some amount of control over them, or that they do not deserve protection. But it is to say that when obesity prevention policies of the sort discussed here are implemented, they would replace one set of influential external stimuli with a different set, rather than exert influence on consumer

choices where none had previously existed.

Challenge 2

The second challenge we raise is whether current patterns of consumption represent free choice or social injustice. Legitimate philosophical debate surrounds how far governments should go to protect us from ourselves,^{73,74} and most political models place some limits on government interference. And yet, the systematically higher rates of obesity among food-insecure individuals compared with the food-secure raise questions whether public policy around obesity prevention should be labeled government interference with individual preference, or government responsibility in the name of social justice. That is, disparities in access to healthy food and in rates of obesity not only challenge the meaning of “individual choice” in this context but also may underscore a responsibility founded in justice for government intervention. Indeed, it is precisely when important inequities exist, or when important public goals—such as ensuring an environment that is health-promoting rather than health-damaging—are not being met, that governments have a duty to act. (A related argument has been outlined by Arrow.^{75(p947)})

“Nanny state” accusations increasingly surround obesity prevention proposals,^{76,77} implying that government action to influence what we eat or drink represents unwarranted government “interference.” Whether policy interventions are framed as interfering with individual choice, or as

leveling the playing field—both between the food insecure and food secure, and between external stimuli to consume less- versus more-healthy products—will be relevant to whether we believe public health obesity interventions do or do not have an impact on our liberties.

Challenge 3

The third challenge we raise is whether all liberties are equally important, morally. Although a central responsibility of government is to protect foundational liberties from unwarranted intervention, it does not necessarily follow that fundamental liberties are threatened when public policy discourages consumption of unhealthy products or prohibits government spending on them. The personal pleasure to be derived from consumption of SSBs is absolutely worthy of consideration, and yet such pleasure does not rise to the level of a fundamental freedom. With the established responsibilities of governments in all of the 50 states to create health-promoting environments, it becomes critically important to understand the nature of the “liberties” potentially threatened. Erecting boundaries and disincentives to discourage consumption of SSBs, while still allowing reasonable access to them, reasonably balances government’s responsibilities here.

Yet even if the case can be made, in general, that some government intervention to try to influence what we consume, and thus to prevent obesity, is ethically warranted, not all obesity prevention strategies are morally



equivalent. Our analysis suggests that restricting the sale of SSBs in public schools and imposing higher taxes on nutritionally empty, calorie-dense consumables such as SSBs have evidence of effectiveness, impose minimal risks and burdens, and further (or do not impede) social justice. Both navigate a reasonable balance between improving health and fairness, while also respecting individuals' interests in having continued and unobstructed access to pleasurable but nonessential market goods.

Eliminating SSBs from covered SNAP benefits, however—a proposal currently being debated in several states and localities—fails to meet this test. The lack of data demonstrating effectiveness of a SNAP ban is part of this concern: public health interventions must be grounded in evidence of their efficacy. But independent of this challenge, deeper moral concerns surround such a ban, as it would be imposed only upon our poorest citizens. To the contrary, essential commitments of public health to fairness require a comprehensive, pangovernment approach to attempts to reduce SSB consumption. Indeed, the 6 considerations discussed previously, taken together, lead us to a much broader conclusion—that nutritional standards should be followed in all government programs, policies, and expenditures.

Specifically, a coherent, fair, and ethically preferable strategy for obesity prevention and health promotion, consistent with considerations 5 and 6, would be for government programs and funds—from the food supplied through

school lunches, SNAP, and the Special Supplemental Nutrition Program for Women, Infants, and Children to those sold in the vending machines in public schools and government buildings, to the food purchased through federal grants—to serve, reimburse, or purchase foods and drinks that collectively better reflect the recommendations expressed in the Dietary Guidelines. Presumably a specific set of guidelines—similar to the nutritional standards, derived from federal Dietary Guidelines, in the National School Lunch Program—would identify what could and could not be purchased or reimbursed through this wide array of government venues, expenditures, and programs. Such a broad approach would examine and target how government dollars are spent, and what government institutions stand for, rather than focusing on how SNAP dollars are spent. It would result in SSBs not being reimbursable with SNAP dollars but would also forbid sale of SSBs in public schools and in other public venues. This strategy would underscore government's commitment to the integrity and importance of its evidence-based guidelines, while further upholding the symbolic relevance of government institutions modeling behaviors relevant to pursuit of the public good.

We recognize that broadly implementing rules that forbid government dollars to be spent on SSBs is unlikely politically, at least in the short run. Introducing more immediate strategies, such as disincentives to SSB consumption through taxation, or prohibitions

of SSB sales in public school, will be consistent with both stated and symbolic missions of government public health. Stated differently, widespread policies that would forbid SSB sales or provide disincentives for SSB consumption across public institutions and programs as a whole better honor the symbolic relevance of government; they also better achieve a fair balance of government responsibility for health with respect for important liberties in the most nondiscriminatory fashion. Ethics, however, would permit partial implementation of obesity prevention strategies, so long as such implementation was done fairly. Under no set of circumstances, however, may government bans be confined to those who are poor, both because of the unfairness of such an approach on its face, and the message it conveys to the entirety of our community.

A government response to obesity is essential and is consistent with how federal, state, and local health departments have led prevention and response strategies in other epidemics. The massive toll that obesity is taking across the country similarly requires a comprehensive response. Multiple policy strategies will likely be needed, reinforcing a unified message to the public that explains and promotes good nutrition and healthful behavior, that models implementation of such behavior across government programs, and that ensures being responsible stewards of government funds in terms of spending public dollars on food and drink that our government guidelines suggest can nourish rather than damage.

Our analysis suggests that many individual and targeted strategies are ethically defensible and, in the short term, undoubtedly should be implemented. And yet, in the long run, a more widespread policy requirement to use government funds in ways consistent with evidence-based and periodically revised government guidance is not only likely to achieve a more comprehensive benefit, but also is the only way to invoke—in perception and in reality—our commitments to fairness and social justice as we work to combat obesity—and to public health more broadly—in the United States. ■

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Contributors

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Human Participant Protection

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References

- US Department of Health and Human Services, Office of the Surgeon General. The Surgeon General's call to action to prevent and decrease overweight and obesity. 2001. Available at: <http://www.surgeongeneral.gov/library/calls/obesity/CalltoAction.pdf>. Accessed September 17, 2013.
- Flegal KM, Carroll MD, Ogden CL, Curtin LR. Prevalence and trends in obesity among US adults, 1999–2008. *JAMA*. 2010;303(3):235–241.
- Ogden CL, Carroll MD, Curtin LR, Lamb MM, Flegal K. Prevalence of high body mass index in US children and adolescents, 2007–2008. *JAMA*. 2010;303(3):242–249.
- Centers for Disease Control and Prevention. Obesity trends among U.S. adults between 1985 and 2010. 2010. Available at: http://www.cdc.gov/obesity/downloads/obesity_trends_2010.pdf. Accessed August 24, 2013.
- Finkelstein EA, Strobman KL. The economics of obesity. *Am J Clin Nutr*. 2010;91(5):1520S–1524S.
- Berg J. Letter to Secretary Vilsack. 2010. Available at: http://www.nyccah.org/files/Vilsack_SNAP_restrictions.pdf. Accessed September 15, 2013.
- Flegal KM, Carroll MD, Kit BK, Ogden CL. Prevalence of obesity and trends in the distribution of body mass index among US adults, 1999–2010. *JAMA*. 2012;307(5):491–497.
- Ogden CL, Lamb MM, Carroll MD, Flegal KM. Obesity and socioeconomic status in adults: United States, 2005–2008. *NCHS Data Brief*. 2010;(50).
- US Department of Agriculture. Definitions of food security. Available at: <http://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-us/definitions-of-food-security.aspx>. Accessed August 29, 2013.
- Coleman-Jensen A, Nord M, Andrews M, Carlson S. *Household Food Security in the United States in 2010*. Washington, DC: US Department of Agriculture, Economic Research Service; 2011. ERR-125.
- Franklin B, Jones A, Love D, Puckett S, Macklin J, White-Means S. Exploring mediators of food insecurity and obesity: a review of recent literature. *J Community Health*. 2012;37(1):253–264.
- Eisenmann JC, Gundersen C, Lohman BJ, Garasky S, Stewart SD. Is food insecurity related to overweight and obesity in children and adolescents? A summary of studies, 1995–2009. *Obes Rev*. 2011;12(5):e73–e83.
- Marketdata Enterprises Inc. The US weight loss & diet control market. 2011. Available at: <http://www.marketresearch.com/Marketdata-Enterprises-Inc-v416/Weight-Loss-Diet-Control-11th-6314539>. Accessed August 12, 2013.
- F as in Fat. Obesity rates and related trends overview. Available at: <http://fasinfat.org/obesity-rates-trends-overview>. Accessed January 30, 2014.
- Yale Rudd Center for Food Policy & Obesity. Legislation trends. 2013. Available at: http://www.yaleruddcenter.org/legislation/legislation_trends.aspx. Accessed May 28, 2013.
- ten Have M, de Beaufort ID, Teixeira PJ, Mackenbach JP, van der Heide A. Ethics and prevention of overweight and obesity: an inventory. *Obes Rev*. 2011;12(9):669–679.
- Upshur R. What does public health ethics tell (or not tell) us about intervening in non-communicable diseases? *J Bioeth Inq*. 2013;10(1):19–28.
- Barnhill A, King KF. Evaluating equity critiques in food policy: the case of sugar-sweetened beverages. *J Law Med Ethics*. 2013;41(1):301–309.
- Clenney J. FPOP event recap: food stamps and the fight against obesity. 2012. Available at: <http://columbiapop.wordpress.com/2012/05/03/fpop-event-recap-the-case-for-and-against-healthier-food-stamps>. Accessed September 12, 2012.
- Will GF. Beware of paternalistic bureaucrats' mandates. 2012. Available at: <http://www.deseretnews.com/article/765598667/Beware-of-paternalistic-bureaucrats-mandates.html?pg=all>. Accessed September 17, 2012.
- The Future of Public Health*. Washington, DC: Institute of Medicine; 1988.
- Gostin L. *Public Health Law: Power, Duty, Restraint*. Los Angeles, CA: University of California Press; 2000.
- Childress JF, Faden RR, Gaare RD, et al. Public health ethics: mapping the terrain. *J Law Med Ethics*. 2002;30(2):170–178.
- Kass NE. An ethics framework for public health. *Am J Public Health*. 2001;91(11):1776–1782.
- Lee LM. Public health ethics theory: review and path to convergence. *J Law Med Ethics*. 2012;40(1):85–98.
- University of Toronto Joint Centre for Bioethics Pandemic Influenza Working Group. Stand on guard for thee: ethical considerations in preparedness planning for pandemic influenza. 2005. Available at: http://www.jointcentreforbioethics.ca/people/documents/upshur_stand_guard.pdf. Accessed August 27, 2013.
- Powers M, Faden R, Saghai Y. Liberty, Mill, and the framework of public health ethics. *Public Health Ethics*. 2012;5(1):6–15.
- Powers M, Faden RR. *Social Justice: The Moral Foundations of Public Health and Health Policy*. New York, NY: Oxford University Press; 2006.
- Bleich SN, Wang YC, Wang Y, Gortmaker SL. Increasing consumption of sugar-sweetened beverages among US adults: 1988–1994 to 1999–2004. *Am J Clin Nutr*. 2009;89(1):372–381.
- Ervin PB, Ogden CL. NCHS data brief: consumption of added sugars among US adults, 2005–2010. 2013. Available at: <http://www.cdc.gov/nchs/data/databriefs/db122.pdf>. Accessed May 28, 2013.
- Chen L, Appel L, Loria C, et al. Reduction in consumption of sugar-sweetened beverages is associated with weight loss: the PREMIER trial. *Am J Clin Nutr*. 2009;89(5):1299–1306.
- US Department of Agriculture, Food and Nutrition Service. National School Lunch Program. 2012. Available at: <http://www.fns.usda.gov/cnd/Lunch/AboutLunch/NSLPFactSheet.pdf>. Accessed August 12, 2010.
- Food Research and Action Center. National and state program data. 2010. Available at: <http://frac.org/reports-and-resources/reports-2>. Accessed August 29, 2012.
- Dietary Guidelines for Americans 2010*. Washington, DC: US Department of Agriculture and US Department of Health and Human Services; 2010:16.
- US Department of Agriculture. National School Lunch Program and School Breakfast Program: Nutrition Standards for All Foods Sold in School as Required by the Healthy, Hunger-Free Kids Act of 2010. Available at: <http://www.gpo.gov/fdsys/pkg/FR-2013-06-28/pdf/2013-15249r.pdf>. Accessed January 30, 2014.
- Briefel RR, Crepinsek MK, Cabili C, Wilson A, Gleason PM. School food environments and practices affect dietary behaviors of US public school children. *J Am Diet Assoc*. 2009;109(2, suppl):S91–S107.
- Cradock AL, McHugh A, Mont-Ferguson H, et al. Effect of school district policy change on consumption of sugar-sweetened beverages among high school students, Boston, Massachusetts, 2004–2006. *Prev Chronic Dis*. 2011;8(4):A74.
- Fox S, Meinen A, Pesik M, Landis M, Remington PL. Competitive food initiatives in schools and overweight in children: a review of the evidence. *WJF*. 2005;104(5):38–43.
- Johnson DB, Bruemmer B, Lund AE, Evens CC, Mar CM. Impact of school district sugar-sweetened beverage policies on student beverage exposure and consumption in middle schools. *J Adolesc Health*. 2009;45(3, suppl):S30–S37.
- Park S, Sappenfield WM, Huang Y, Sherry B, Bensyl DM. The impact of the availability of school vending machines on eating behavior during lunch: the Youth Physical Activity and Nutrition Survey. *J Am Diet Assoc*. 2010;110(10):1532–1536.
- Resnick MA. An American imperative: public education. 2006. Available at: <http://www.centerforpubliceducation.org/Main-Menu/Public-education/An-American-imperative-Public-education-/default.aspx>. Accessed August 23, 2012.
- Deal TE. The symbolism of effective schools. *Elem Sch J*. 1985;85(5):601–620.
- Yale Rudd Center for Food Policy and Obesity. Soft drink taxes: a policy brief. *Rudd Report*. 2009(Fall).
- Fletcher JM, Frisvold D, Tefft N. Can soft drink taxes reduce population weight? *Contemp Econ Policy*. 2010;28(1):23–35.
- Chaloupka FJ, Yurekli A, Fong GT. Tobacco taxes as a tobacco control strategy. *Tob Control*. 2012;21(2):172–180.
- Tauras JA. Public policy and smoking cessation among young adults in the United States. *Health Policy*. 2004;68(3):321–332.
- Wang YC, Coxson P, Shen YM, Goldman L, Bibbins-Domingo K. A penny-per-ounce tax on sugar-sweetened beverages would cut health and cost burdens of diabetes. *Health Aff (Millwood)*. 2012;31(1):199–207.
- Finkelstein EA, Zhen C, Nonnemaker J, Todd JE. Impact of targeted beverage taxes on higher- and lower-income



- households. *Arch Intern Med.* 2010;170(22):2028–2034.
49. Andreyeva T, Chaloupka FJ, Brownell KD. Estimating the potential of taxes on sugar-sweetened beverages to reduce consumption and generate revenue. *Prev Med.* 2011;52(6):413–416.
50. Federal tax credits for consumer energy efficiency. 2013. Available at: http://www.energystar.gov/index.cfm?c=tax_credits.tx_index. Accessed May 28, 2013.
51. US Department of Energy. Tax credits, rebates and savings. Available at: <http://energy.gov/savings>. Accessed May 28, 2013.
52. Salpukas A. Falling tax would lift all yachts. 1992. Available at: <http://www.nytimes.com/1992/02/07/business/falling-tax-would-lift-all-yachts.html>. Accessed May 28, 2013.
53. Center on Budget and Policy Priorities. Which states tax the sale of food for household consumption in 2009? 2009. Available at: <http://www.cbpp.org/files/3-16-06sf3.pdf>. Accessed August 27, 2013.
54. Brownell KD, Frieden TR. Ounces of prevention—the public policy case for taxes on sugared beverages. *N Engl J Med.* 2009;360(18):1805–1808.
55. The Food Stamp Act of 1964. Pub L 88-525(1964). Available at: http://www.fns.usda.gov/sites/default/files/PL_88-525.pdf. Accessed January 18, 2014.
56. Eslami E, Filion K, Strayer M. Characteristics of Supplemental Nutrition Assistance Program households: fiscal year 2010. 2011. Available at: <http://www.fns.usda.gov/sites/default/files/2010Characteristics.pdf>. Accessed August 29, 2013.
57. US Department of Agriculture, Food and Nutrition Service. Supplemental Nutrition Assistance Program. 2012. Available at: <http://www.fns.usda.gov/snap/snap.htm>. Accessed August 29, 2012.
58. Food Research and Action Center. A review of strategies to bolster SNAP's role in improving nutrition as well as food security. Available at: <http://www.frac.org/wp-content/uploads/2011/06/SNAPstrategies.pdf>. Accessed August 29, 2013.
59. Ogden CL, Kit BK, Carroll MD, Park S. Consumption of sugar drinks in the United States, 2005–2008. *NCHS Data Brief.* 2011:71.
60. Leung CW, Villamor E. Is participation in food and income assistance programmes associated with obesity in California adults? Results from a state-wide survey. *Public Health Nutr.* 2010;14:645–652.
61. Wholesome Wave. Double Value Coupon Program Diet and Shopping Behavior Study. 2012. Available at: <http://wholesomewave.org/wp-content/uploads/2012/09/Double-Value-Coupon-Program-Diet-Shopping-Behavior-Study-.pdf>. Accessed May 28, 2013.
62. Association of State and Territorial Health Officials. *Profile of State Public Health.* Available at: <http://www.astho.org/Research/Major-Publications/Profile-of-State-Public-Health-Vol-1>. Accessed January 18, 2014.
63. Mori D, Chaiken S, Pliner P. “Eating lightly” and the self-presentation of femininity. *J Pers Soc Psychol.* 1987;53(4):693–702.
64. Salvy SJ, Jarrin D, Paluch R, Irfan N, Pliner P. Effects of social influence on eating in couples, friends and strangers. *Appetite.* 2007;49(1):92–99.
65. Van Ittersum K, Wansink B. Plate size and color suggestibility: the Delboeuf Illusion's bias on serving and eating behavior. *J Consum Res.* 2012;39(2):215–228.
66. French SA, Hannan PJ, Harnack LJ, Mitchell NR, Toomey TL, Gelach A. Pricing and availability intervention in vending machines at four bus garages. *J Occup Environ Med.* 2010;52(suppl 1):S29–S33.
67. Epstein LH, Jankowiak N, Nederkoom C, Raynor HA, French SA, Finkelstein E. Experimental research on the relation between food price changes and food-purchasing patterns: a targeted review. *Am J Clin Nutr.* 2012;95(4):789–809.
68. Levy DE, Riis J, Sonnenburg LM, Barraclough SJ, Thorndike AN. Food choices of minority and low-income employees: a cafeteria intervention. *Am J Prev Med.* 2012;43(3):240–248.
69. Maas J, Ridder DT, de Vet E, de Wit JB. Do distant foods decrease intake? The effect of food accessibility on consumption. *Psychol Health.* 2012;27(suppl 2):59–73.
70. Wansink B. Environmental factors that increase the food intake and consumption volume of unknowing consumers. *Annu Rev Nutr.* 2004;24:455–479.
71. Story M, Kaphingst KM, Robinson-O'Brien R, Glanz K. Creating healthy food and eating environments: policy and environmental approaches. *Annu Rev Public Health.* 2008;29:253–272.
72. Barnhill A, King K. Ethical agreement and disagreement about obesity prevention policy in the United States. *Int J Health Policy Manag.* 2013;1(2):117–120.
73. Pellegrino ED. Health promotion as public policy: the need for moral groundings. *Prev Med.* 1981;10(3):371–378.
74. Wikler DI. *Ethical Issues in Governmental Efforts to Promote Health.* Washington, DC: National Academy of Sciences; 1978.
75. Arrow KJ. Uncertainty and the welfare economics of medical care. *Am Econ Rev.* 1963;53(5):941–973.
76. Strom SUS. Standards for school snacks move beyond cafeteria to fight obesity. *The New York Times.* June 27, 2013;Business Day section:B3. Available at: http://www.nytimes.com/2013/06/28/business/us-takes-aim-on-snacks-offered-for-sale-in-schools.html?_r=0. Accessed January 18, 2014.
77. Ball M. Mike Bloomberg doesn't care what you think. *The Atlantic.* June 1, 2012. Available at: <http://www.theatlantic.com/politics/archive/2012/06/mike-bloomberg-doesnt-care-what-you-think/258001>. Accessed January 18, 2014.