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Trans Fat Bans and Human Freedom

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Abstract

A growing body of evidence has linked consumption of trans fatty acids to cardiovascular disease. To promote public health, numerous state and local governments in the United States have banned the use of artificial trans fats in restaurant foods, and additional bans may follow. Although these policies may have a positive impact on human health, they open the door to excessive government control over food, which could restrict dietary choices, interfere with cultural, ethnic, and religious traditions, and exacerbate socioeconomic inequalities. These slippery slope concerns cannot be dismissed as far-fetched, because the social and political pressures are in place to induce additional food regulations. To protect human freedom and other values, policies that significantly restrict food choices, such as bans on types of food, should be adopted only when they are supported by substantial scientific evidence, and when policies that impose fewer restrictions on freedom, such as educational campaigns and product labeling, are likely to be ineffective.

Keywords

ethics; freedom; policy; public health; slippery slope; trans fats

Trans fatty acids (or trans fats) are unsaturated *trans*-isomer fatty acids, which may be monosaturated or polyunsaturated. Small amounts of trans fats occur naturally in meat and dairy products, but the largest source of these lipids in the human diet comes from artificial sources, such as partially hydrogenated vegetable oils used in cooking and food preparation (Institute of Medicine 2002). Trans fats became popular with food manufacturers, bakeries, and restaurants in the 1960s, because they can enhance the taste of some foods and help to preserve texture. Trans fats used in frying also are more durable than other types of oils and have a neutral taste (Severson 2003).

A growing body of evidence has linked consumption of trans fats to cardiovascular disease (Woodside et al. 2008). According to a meta-analysis of four prospective cohort studies, a 2% increase in energy uptake from trans fats is associated with a 23% increased risk of cardiovascular disease. Trans fats are also associated with sudden death from cardiac causes (Mozaffarian et al. 2006). Trans fats are thought to promote cardiovascular disease by increasing levels of low-density lipoprotein (LDL or “bad”) cholesterol in the blood and decreasing levels of high-density lipoprotein (HDL or “good”) cholesterol (Institute of Medicine 2002; Ascherio 2006). According to some experts, replacing artificial trans fats with healthier oils, such as olive oil or canola oil, could save 30,000 to 100,000 lives per year in the United States (American Medical Association 2008).

In January 2006, the Food and Drug Administration (FDA) required that nutrition labels on foods include information about trans fat content (Food and Drug Administration 2006). The

FDA estimates that trans fat labeling could save up to 500 lives per year in the United States by reducing the incidence of cardiovascular disease (Food and Drug Administration 2006). Consumer groups and public health organizations have argued that product labeling is not a sufficient response to the problem posed by trans fats, and that there should be a ban on all artificial trans fats in food (Ban Trans Fats 2009; Center for Science in the Public Interest 2008; American Medical Association 2008). Several major cities and counties (New York City, Boston, Philadelphia, King County, WA, and Nassau County, NY), the state of California, and Puerto Rico have heeded this call and passed laws banning the use of artificial trans fats in restaurant food. More bans are likely to follow (Steinhauer 2008; Center for Science in the Public Interest 2008).

While many view trans fat bans as an important policy tool for promoting public health, others are disturbed by the government's encroachment on freedom and autonomy. ABC News's John Stossell writes, "This week, New York became the first big city to ban trans fats. Gee, I'm all for good health, but shouldn't it be a matter of individual choice?" David White (2007) expresses a similar sentiment: "Like smoking, the choice to eat high-calorie foods might not always be prudent. But government prohibition of that choice is a remarkable confiscation of freedom." National newspaper columnist Walter Williams raises slippery slope concerns:

The nation's food zealots have ... started out with a small target—a ban on restaurant use of trans fats. Here's what I predict is their true agenda: If banning a fat that's only two percent of our daily caloric intake is wonderful, why not ban saturated fats, the intake of which is much higher? Then there's the size of restaurant servings. Instead of a law simply requiring restaurants to label the calories in a meal, there will be laws setting a legal limit on portions. (Williams 2007)

Should we embrace trans fat bans as a sound public policy or should we be wary of this strategy for controlling the human diet? Are trans fat bans the best thing since sliced bread or the road to food fascism? In this essay I examine the ethical arguments for and against trans fat bans (i.e., bans on trans fats in foods prepared by restaurants or other commercial food producers). I argue that while trans fat bans may help to improve public health, they represent a worrisome policy trend, because they open the door to further restrictions on food. Though few people will mourn the loss of artificial trans fats from restaurant food, the issue here is much larger than that. At stake is a freedom that most of us exercise every day but often take for granted: the freedom to choose what we eat.

ARGUMENTS FOR TRANS FAT BANS

Public Health Promotion

The two main arguments for trans fat bans are consequentialist in form. According to the first argument, trans fat bans are justified in order to promote an important social good, public health. Trans fat bans can promote public health by reducing the consumption of trans fats, which could reduce the incidence and severity of cardiovascular disease. According to one estimate, totally eliminating artificial trans fats from the food supply in the United States would save 50,000 lives per year (Center for Science and the Public Interest 2008). Trans fat bans are cut from the same cloth as other laws that safeguard the food supply, such as such as quality and safety standards for restaurants and food manufacturers, regulation of food additives, and product labeling requirements (Fortin 2009). Food safety and quality laws help to prevent food manufacturers from harming the public with unsafe or unhealthy products, and they can assist consumers in making healthy choices. Recent events, such as adulteration of powdered milk in China with the industrial chemical melamine, which killed five children and sickened over 300,000, and contamination of peanut butter with

Salmonella in the United States, which killed nine people and sickened over 570, illustrate the importance of food safety and quality as a public health matter (Barboza 2008; Martin 2009).

The strength of the public health argument depends on the empirical premise that trans fat bans will promote public health. While this assertion is highly plausible, given what we know about the adverse effects of trans fats on the cardiovascular system, it is not indubitable. Because trans fat bans have been in effect for only a few years, very little is known about how they impact public health. One study has shown that mandatory labeling of products with trans fats reduces consumption of trans fats, but there have been no studies on the effects of trans fat bans (Niederdeppe and Frosch 2009). Trans fat bans could, paradoxically, reduce some unhealthy behaviors but encourage others. Many food manufacturers began using artificial trans fats in commercial products during the 1980s and 1990s to reduce the saturated fat and cholesterol content of food, because the medical consensus at that time was that saturated fats and cholesterol are unhealthy. As it turned out, trans fats are much worse for the human heart than saturated fats; some saturated fats, such as those contained in peanut and canola oils, are good for you; and moderate amounts of cholesterol in the diet are essential to health (Severson 2003). While I am not suggesting that there is no scientific basis for reducing the consumption of artificial trans fats, I do think that much more research is needed on the public health effects of trans fat policies, so that we can avoid repeating the nutrition policy mistakes of the past.

Economic Cost-Savings

The second argument for trans fat bans is an economic one. According to this line of thought, bans on artificial trans fats can save potentially billions of dollars in health care and related costs by reducing prevalence and severity of cardiovascular disease (Ban Trans Fats 2009). In the United States, over 80 million people (36% of the population) have cardiovascular disease (American Heart Association 2009). The direct and indirect costs of cardiovascular disease amount to an estimated \$305 billion in the United States in 2009 (Centers for Disease Control and Prevention 2009a). If a nationwide ban on artificial trans fats reduced the costs of cardiovascular disease by only 10%, this would save \$30 billion per year.

The strength of the economic argument depends on the empirical premise that trans fats ban will reduce the costs associated with cardiovascular disease. This assertion, like the empirical premise in the public health argument, is also highly plausible, given what we know about the effects artificial trans fats on human health, but it is not unassailable. Consider the costs of smoking. For many years, health policy analysts have assumed that smoking places enormous economic burdens on society by increasing costs related to lung cancer, pulmonary disease, cardiovascular disease, and other health problems (World Bank 1999). Smoking costs the United States nearly \$200 billion per year in health care expenditures and lost productivity (Centers for Disease Control and Prevention 2009b). A recent study examining the lifetime costs of smoking found that smokers actually cost society less than nonsmokers, because smokers die earlier. The investigators examined the costs of three cohorts: an obese cohort, a smoking cohort, and a healthy living cohort. The healthy living cohort cost society the most money, because they lived an average of 7 years longer than the smoking cohort and 4.5 years longer than the obese cohort. During those extra years of life, people in the healthy living cohort had costs associated with various diseases of aging, such as bone fractures, arthritis, stroke, dementia, urinary-tract infections, and loss of hearing and vision (van Baal et al. 2008). Some authors have disputed the policy implications of this study because it does not take into account costs of quality-adjusted life years lost (McPherson 2008). The debate over the costs of smoking suggests that we should

be careful about making claims about the potential cost-savings of trans fat bans. While there clearly is a factual basis for claiming that trans fat bans can save society a great deal of money, more research is needed on the effects of these policies, including effects on the food industry.

ARGUMENTS AGAINST TRANS FAT BANS

Restrictions of Freedom

The main ethical argument¹ against trans fat bans is that these laws, whether at the local, state, or federal level, constitute an unjustifiable restriction on the freedom to decide what one eats. One could argue that the ability to decide what one eats, though not important as freedom of speech or religion, is an important freedom nonetheless. First, food has a significant impact on one's quality of life. People take great pleasure in eating, preparing, and serving food. Food is more than mere nutrition: it is one of life's simple pleasures. Second, food has considerable ethnic, cultural, and religious significance. Different ethnic and cultural groups have their own cuisines and culinary practices. In any medium-sized city in the United States, one can find restaurants that serve Chinese, Japanese, Italian, French, Mexican, Indian, and Thai food. There are also many different foods associated with particular geographic regions in the United States, such as Southern fried chicken, Texas barbeque, Boston baked beans, Philadelphia steak sandwiches, and so on. Food also has religious significance, as different faiths have various rules, customs, and teachings related to food (Montanari 2006). Third, food plays an important role in family traditions and customs. Food takes center stage at family reunions and at gatherings associated with particular holidays, such as Thanksgiving, Christmas, and Independence Day. Families also have special recipes handed down from generation to generation. Thus, the freedom to decide what one eats is an important freedom that should not be restricted unnecessarily.

A proponent of trans fat bans can acknowledge that the ability to decide what one eats is an important freedom but still maintain that trans fat bans are justifiable. First, bans on artificial trans fats do not have a major impact on food consumers, since most people do not care whether they eat products that contain these substances. People do not have a special fondness for artificial trans fats, but rather for the foods that contain them. Removing artificial trans fats from cookies, crackers, hamburgers, and French fries will make little difference to consumers as long as this does not affect how these foods taste, smell, look, or feel. Bans on artificial trans fats mostly affect food producers, not consumers.

Second, even if some consumers have a strong preference for artificial trans fats, laws that ban commerce and trade in these substances can be justified to promote public health. As noted earlier, trans fat bans fit into the safety and quality regulatory framework that operates in the United States and other industrialized nations. Banning trans fats is no different, in principle, from banning food additives that have been found to be unhealthy, such as cyclamate (Henkle 1999). The reasoning that justifies food safety and quality laws is similar to the reasoning that justifies other public health measures that restrict human freedom, such as mandatory vaccinations, disease surveillance, and isolation and quarantine. Though freedom is an important value, it can be overridden in some circumstances to promote important social goals, such as preventing people from harming themselves or others, and

¹Mello (2009) has examined some of the legal issues concerning the trans fat policies adopted by New York City and other cities and states, including preemption by federal laws and insufficient opportunities for public comment. According to Mello, one of the problems with local policymaking on trans fats is that this could create a patchwork of rules that will create compliance problems for businesses and spark legal battles over preemption issues. Though Mello raises some important legal issues, her analysis does not get to the heart of the matter, since she does not voice any ethical objections to trans fat laws. Rather, her article supports the view that trans fat policies should be made at the federal level, not the local or state level.

promoting the health of the population as a whole (Kass 2001; Childress et al. 2002; Gostin 2007; Buchanan 2008; Gostin and Gostin 2009).

The Slippery Slope

A critic of trans fat bans could acknowledge that not many people have a particular fondness for artificial trans fats and that food safety and quality laws can be justified to promote public health, but could maintain that there is a larger issue at stake here: the continued erosion of dietary freedom. Trans fat bans are very different from food safety and quality laws because they aim to prevent consumers from making unhealthy choices, instead of preventing producers from causing harm. Requiring food manufacturers to ensure that their products are not contaminated with microorganisms that can cause severe illness or death is very different from preventing manufacturers from selling products that increase the risk of cardiovascular disease if consumed for many years, because most people will not voluntarily choose to eat food that is contaminated or spoiled, while people often choose to eat foods that can cause harm if eaten for many years. Bans on the use of trans fats in restaurant food would lead to additional bans on trans fats, which would open the door to further restrictions on the human diet, since there is no difference, in principle, between banning artificial trans fats and banning other unhealthy foods, such as processed meats and sugared drinks. Today, trans fats; tomorrow, hot dogs.

Support for this empirical slippery slope argument comes from the following facts: (1) we already know about the adverse health effects of many foods and science is likely to discover more; (2) health advocates are likely to continue to push for additional regulations; and (3) health-conscious consumers and politicians are likely to be receptive to additional regulations. For example, consumption of red meat and processed meat increases the risk of colon cancer (Johnson and Lund 2007), and consumption of sugared drinks, especially those high in fructose, increases the risk of obesity, diabetes, and heart disease (Brown et al. 2008). Emboldened by victories against trans fats, health advocates could go after red meats, processed meats, sugared drinks, and other unhealthy foods (Chan 2008).

The social consequences of sliding down the slope toward additional food regulation could outweigh any public health gains that might result. Since restrictions on the human diet can impact quality of life, family traditions, and cultural, ethnic, and religious practices, wide-ranging attempts to control food choices could have adverse consequence on society. Few people would want to live in a world in which government health experts dictate what is on the menu or how it should be prepared.

Additionally, increased regulation of the human diet could lead to social and economic injustices. Policies that make it more difficult to obtain affordable nutrition, such as taxes on food, can exacerbate socioeconomic inequalities (Caraher and Cowburn 2005). For example, hot dogs, bologna, and other processed meat products provide an inexpensive form of protein, but they also are high in saturated animal fat, the consumption of which contributes to cardiovascular disease (Woodside et al. 2008). If the government taxes or bans these foods on the grounds that they contribute to heart disease, then low-income people might need to seek other, more expensive sources of protein.

A standard response to an empirical slippery slope argument is to assert that the slide toward undesirable outcomes can be avoided by implementing rules, procedures, or definitions designed to stabilize policy and practice (Lewis 1999). A proponent of trans fat bans could claim that society can avoid excessive food regulation by distinguishing between bans on food additives and bans on foods. A food additive is a substance added to food to improve taste, texture, flavor, color, or freshness. Bans on cyclamates, which are food additives that enhance sweetness, have not led to bans on foods that enhance sweetness, such as sugar

(Henkle 1999). By limiting the scope of trans fat bans to prohibitions on food additives, such as artificial trans fats, society can promote public health while safeguarding other values.

A proponent of trans fats bans could also point out that there are social and economic forces in place that would counteract a move from trans fat bans to bans on other foods. For example, tobacco companies, automobile manufacturers, and many other corporations have mounted influential (and often successful) campaigns against government regulation. The food industry would be a powerful opponent of any attempt to extend the scope of food regulation beyond trans fats.

While I appreciate the merits of these critiques of the empirical slippery slope argument, I am not convinced that they defuse concerns about excessive food regulation. First, the distinction between foods and food additives is not as clear as one might think. Many substances added to improve the taste, texture, flavor, color, or freshness of food, such as sugar, corn syrup, yeast, citric acid, and vitamins, might also be viewed as foods. It is not at all obvious how one could make a conceptually stable distinction between artificial trans fats and other lipids added to foods. A policy framework that focused on specific kinds of fats defined as “food additives” could collapse under social and political pressure for additional food regulation. Second, although there are powerful forces that would resist attempts to extend the scope of food regulation beyond trans fats, it is not clear to me that these forces would be able to hold the line. Restaurants and food connoisseurs who opposed trans fats bans in New York City, California, and other jurisdictions could not resist effective campaigns by public health organizations and consumer groups.

TOWARD RATIONAL FOOD POLICIES

The empirical slippery slope argument developed in the previous section cannot be easily dismissed as a flight of fancy, since it is firmly rooted in existing political, social, economic, and biological realities. To avoid the undesirable outcomes that could occur from excessive government control over the human diet, food policy decisions should be made with an eye toward not only promoting public health but also preserving human freedom. One of the central dilemmas in public health policy is how to balance health promotion and other important values, such as freedom and justice (Kass 2001; Childress et al. 2002; Gostin 2007).

To develop food policies that appropriately balance public health and freedom, and therefore address slippery slope concerns, it will be useful to establish a set of conditions that must be met to restrict human freedom. These conditions can help to ensure that policy decisions will not be made willy-nilly, but will be appropriately articulated, reviewed, and justified (Kass 2001). The following are some conditions that can be applied to proposed policies that restrict human freedom to promote public health (Childress et al. 2002):

- Effectiveness: there must be substantial scientific evidence that the policy is likely to be effective at achieving an important public health goal.
- Necessity: there must be substantial scientific evidence that the policy is necessary to achieve the public health goal.
- Proportionality: the potential public health gains of the policy must outweigh the adverse social impacts and other moral considerations.
- Least infringement: the policy must impose the least restrictions on freedom necessary to promote the public health goals.
- Publicity: the policy must be justified to the public, with the reasons for restricting freedom clearly explained.

How might these conditions apply to trans fat bans? The trans fat bans enacted by state and local governments may meet three of these conditions. Trans fat bans probably may be effective, because, as mentioned previously, trans fat bans may help to promote public health, though more research is needed. Trans fat bans may also meet the proportionality condition as well, because the public health gains could outweigh adverse social impacts and other moral considerations. Because few people have special preference for artificial trans fats, trans fats bans probably do not have a significant impact quality of life, cultural, ethnic, or religious traditions, or family values. Trans fat bans will not exacerbate socioeconomic inequalities by increasing the price of food, though more research is needed to verify this point. Trans fat bans also meet the publicity condition, because they have been discussed and debated government hearings, public comment meetings, and other public forums (Mello 2009).

The trans fat bans that have been enacted thus far may not meet the other two conditions, however. The bans may not meet the necessity condition, because a combination of other policies, such as education and mandatory labeling, may be equally effective at achieving public health goals. Proponents of trans fat bans have asserted that they are necessary, because the other methods for promoting public health are not effective enough, since consumers may not understand the risks of trans fats or heed warnings or advice (Ban Trans Fats 2009). However, this claim rings hollow, because bans have been imposed before public education and food labeling have been given a chance to work. Trans fats have only been on the public's radar screen since about 2001. Prior to this time, people were more concerned about saturated fats in the diet (Severson 2003). FDA labeling and voluntary labeling by fast food restaurants began in 2006, but the movement to ban trans fats began before then. Admittedly, educational campaigns and product labeling may prove to be ineffective, but then again, they may not. The important point is that we simply do not have enough evidence at this time to declare that educational campaigns and product labeling will fail and that some other policies are necessary.

If it turns out that other methods of decreasing the consumption of trans fats are as effective as bans, then trans fats bans also do not meet the least infringement condition as well. To develop this point, it will be useful to classify different trans fat policies with respect to how much they restrict human freedom. Education involves virtually no restriction on freedom, because the objectives of education are to convey information and enhance decision-making, not to manipulate or control individual choices. Mandatory food labeling is more restrictive than education, because labeling controls the decisions made by food producers, even though this helps to promote effective decision making by consumers. Taxation is more restrictive than labeling because it can place financial constraints on decisions made by food producers and consumers. Food safety and quality standards are highly restrictive, because they require food producers to follow specific rules, and impose penalties for noncompliance. Bans on particular food items are the most restrictive methods of promoting public health, because bans prevent people from making some types of dietary choices and they prevent food producers from selling particular types of foods.

Thus, although trans fat bans probably will help to promote public health, a convincing argument can be made that governments have enacted these policies without determining whether other policies, which do not significantly restrict human freedom, are effective at promoting public health. A better way of dealing with the trans fat problem would be give education and product labeling a chance to work, before resorting to the extreme measure of banning trans fats. By enacting food policies that limit the freedom to choose what one eats only as an option of last resort, the government can strike a fair balance between promoting public health and protecting human freedom (Wikler 1978; Mytton 2007).

CONCLUSION

While it is clear that consumption of artificial trans fats poses a significant risk to human health, it is not clear how societies should respond to this risk. Numerous state and local governments in the United States have banned the use of artificial trans fats in restaurant foods, and other bans may follow. Although these policies may have a positive impact on human health, they open the door to excessive government control over food, which could restrict dietary choices, interfere with cultural, ethnic, and religious traditions, and exacerbate socioeconomic inequalities. These slippery slope concerns cannot be dismissed as far-fetched, because the social and political pressures are in place to induce additional food regulations. To protect human freedom and other values, policies that significantly restrict food choices, such as bans on types of food, should be adopted only when they are supported by substantial scientific evidence and when policies that impose fewer restrictions on freedom, such as educational campaigns and product labeling, are likely to be ineffective.

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