Countering the Obesity Epidemic: Policy Recommendations for a New Century

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Obesity Epidemic:Policy Proposals for a New Century

By,

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I.

Introduction

It is undisputed that the number of obese and overweight Americans has increased dramatically over the last several decades. Currently, approximately 127 million, or 65 percent, of adult Americans are overweight and 60 million, or 30 percent, of those are obese.[1] This is nearly double the number from as recently as 1980.[2] Obesity is increasing across education levels and geographic areas, and most startlingly, the rate of obesity in children nearly tripled in the last 20 years.[3] Moreover, already obese individuals are gaining even more weight, such that 4.7 percent of the population is morbidly obese.[4] While there is a great deal of speculation about what is causing this increase in obesity, there is very little hard data on the subject. Although obesity reduction has been a goal of public health policy since 1980,[5] this topic has only recently become an issue of popular concern.

The health effects of obesity are severe, and it is now the second leading preventable cause of death after cigarette smoking, causing an estimated 300,000 deaths a year.[6] In addition to increased morbidity, obesity is responsible for as many as thirty serious medical conditions including type 2 diabetes, coronary heart

[1] Katherine M. Flegal, Margaret D. Caroll, et. al., *Prevalence and Trends in Obesity Among US Adults: 1999-2000*, 10/9/02 J. Am. Med. Assoc. 1723 (2002). Obesity and overweight statistics are derived from calculating an individual's Body Mass Index (BMI), a formula that compares weight to height. For adults, a BMI of 25 or higher is considered overweight, and 30 or higher is obese. Morbid obesity results when BMI climbs to 40 or higher.

[2] American Obesity Association, *Obesity in the United States*, *at* http://www.obesity.org/subs/fastfacts/obesity_US.shtml (last visited March 20, 2003). As recently as 1980, only 46 percent of American adults were overweight and 14 percent were obese, indicating a dramatic increase in the prevalence of obesity.

[3] *The Surgeon General's Call to Action to Prevent and Decrease Overweight and Obesity*, *at* http://www.suregeongeneral.gov/topics/obesity (last visited March 20, 2003) [hereinafter *Surgeon General's Call*].

[4] American Obesity Association, *supra* note 2.

[5] Marion Nestle & Jacob F. Jacobson, *Halting the Obesity Epidemic: A Public Health Policy Approach*, Public Health Reports, January/February 2000, at 12 [hereinafter *Halting the Obesity Epidemic*]. In 1980, the U.S. Public Health Service promulgated Promoting Health/Preventing Disease, the precursor to Healthy People 2000 and Health People 2010, which stated as an explicit goal reducing the prevalence of significantly overweight individuals.

[6] *Surgeon General's Call*, *supra* note 3. This is compared to 400,000 deaths annually caused by tobacco. There is also some speculation that, if left untreated, obesity may in fact surpass smoking as the leading cause of death sometime in the near future.

disease, hypertension, several types of cancer and arthritis.[7] Additionally, obesity has dramatic effects on the mental health of individuals and can cause psychological problems among both adults and children.[8] Obesity related health care costs have now reached $117 billion a year.[9]

Despite these stark statistics, one recent study showed that the public is still not seriously concerned with obesity and generally does not support strategies targeted at reducing the incidence of obesity.[10] Most individuals surveyed regard obesity as primarily an individual failing that is partially contributed to by environmental factors. Survey participants ranked obesity behind cancer, diabetes, AIDS and heart disease as serious health concerns, despite the fact that approximately half of all respondents were overweight themselves.[11] These attitudes contribute to the hesitancy of policymakers to endorse broad reforms to reduce obesity, as does the relatively recent nature of this epidemic and the lack of broad media attention to this issue.[12]

Despite this general apathy, the recent release of the latest statistical trends in obesity has prompted some attention from the media and the government, but to date most of the actions taken are neither coherent nor effective.[13] The obesity epidemic should be recognized as a public health topic that deserves the same attention that smoking, cancer and other chronic diseases now receive. It is imperative for the sustained public health of the United States that steps be taken to address and control this problem. The rising rates of obesity indicate that many current efforts that focus only on getting individuals to eat more healthily or

[7] Ali H. Mokdad, Earl S. Ford, et. al., *Prevalence of Obesity, Diabetes and Obesity Related Health Risk Factors*, 1/1/03 J. Am. Med. Assoc. 7679 (2003).

[8] Mimi Nichter, Fat Talk: What Girls and Their Parents Say About Dieting 2 (2000).

[9] *Surgeon General's Call*, *supra* note 3. This was the estimated cost for obesity related treatments in the year 2000 only.

[10] Eric Oliver & Taeku Lee, *Public Opinion and the Politics of America's Obesity Epidemic* (unpublished manuscript), *at* http://www.fns.usda.gov/cnd/Breakfast/AboutBFast/faqs.htm (Dec. 1, 2001). The researchers contracted with the Survey Research Center at Princeton University to poll 909 adult respondents in April and May of 2001 to find out their opinions on the causes of obesity and their amenity to supporting obesity reduction reform efforts such as taxing snack food, eliminating the presence of junk food in schools and further regulating the advertising of junk food to children.

[11] *Id.*

[12] *Id.*

[13] Although the current Healthy People 2010 objectives have strategies targeted toward reducing obesity for both adults and children, they provide little direct guidance as to concrete steps to be taken to achieve this goal. Moreover, it does not designate agencies with specific responsibilities, and therefore, is unable to hold any agency accountable for failing to pull its weight.

to exercise more have not worked. Rather, what is necessary is a sustained and comprehensive public health campaign targeted at reducing the growing rate of obesity.

This paper offers an overview of the obesity epidemic as well as a series of policy recommendations designed to counter this trend in America. Section II specifically discusses both the genetic and environmental causes of obesity that may in part be fueling this epidemic. Section III examines several policy recommendations regarding public and private institutional changes that could be made to reduce its severity. This section specifically proposes recommendations regarding federal nutrition policy, portion size regulation, food labeling changes, as well as strategies targeted at the fast food industry. It also includes a discussion of using subsidies or taxes to encourage healthy eating patterns as well as possible employment practices that may incentivize physical activity. Section IV addresses the unique problems surrounding childhood obesity and proposes several policy recommendations specifically targeted at this population.

II.

Overview of Obesity Causes

Despite divergent opinions on the specific causes of obesity, researchers can agree that weight gain is caused by energy imbalances: Overweight people consume more calories than they expend on a daily basis. However, the specifics of the imbalance and its causes are difficult to understand and measure. While a thorough scientific analysis of the causes of obesity is beyond the scope of this paper, it is worthwhile to highlight some important factors commonly cited as causing or exacerbating this problem.

The causes of obesity can be roughly divided into those related to genetic disorders and those resulting from myriad environmental factors such as the increased availability of low-cost, nutrient-poor food and

the decreasing rates of activity among American adults and children. Environmental factors account for weight changes in a population over time, while genetic factors account for the current weight differences in a population.[14] It is likely that the root cause of obesity is neither an issue of genetics nor one of the environment, rather it is a combination of both. Simply stated, some people are genetically predisposed to live in our modern society of plenty, and others are not.

A.

Genetic Factors

The precise role of heredity in causing obesity is unknown, however, obesity experts agree that individual genetic makeup has some bearing on one's predisposition for a certain body type.[15] It is now asserted that many overweight or obese people actually have a gene, sometimes to referred to as the "thrifty gene," that allows its carriers to store more energy in the form of fat.[16] For our ancestors, the ability to store fat was an evolutionary benefit that provided a survival advantage during near certain periods of famine.[17] These genes became obsolete with the advent of Western practices of farming and food storage that lead to a more consistent food supply. Modern agriculture and crop cultivation drastically changed the diet of humans by introducing a consistent supply of grains, legumes and fruits. The ability to store food ensured an adequate supply during the growing off-season or other low-production times. While at one time the thrifty gene was an asset that permitted survival during regular occurrences of famine, in modern times, carriers are now

[14]Rockefeller University, *Obesity Not a Personal Failing, says Leptin Discoverer Jeffrey Friedman, but A Battle Against Biology*, *at* http://www.rockefeller.edu/pubinfo/020603.php (February 6, 2003).

[15]Centers for Disease Control and Prevention, *Obesity and Genetics: A Public Health Perspective*, *at* http://www.cdc.gov/genomics/info/perspectives/obesity.htm (last visited March 25, 2003).

[16]Gary Taubes, *What If It's All Been a Big Fat Lie?*, N.Y. Times Magazine, July 7, 2002.

[17]Nevin S. Scrimshaw & William H. Dietz, *Potential Advantages and Disadvantages of Obesity*, *in* Social Aspects of Obesity 147 (Igor de Garine and Nancy J. Pollock eds., 1995).

predisposed to obesity, while carriers of leaner genes are able to remain thin.[18]

While scientific evidence indicates that biological relatives have similar body weight maintenance patterns, the transmission of these genes from generation to generation is far from simple.[19] A variety of hormones and genes that affect appetite and weight have been identified, and it is estimated that obesity is caused by interactions between at least 250 genes.[20] The hormone leptin was discovered in 1995 and is now considered one of the possible leading genetic and biological factors at play in determining individual tendencies to obesity. Leptin is produced by fat tissues that signal the brain to stop eating.[21] Individuals with more body fat also produce more leptin which acts to reduce food intake. The opposite happens when body fat decreases, with the result being an increase in food intake and a reduction in energy expenditure. Researchers have found that some obese individuals have a genetic mutation that makes the production of leptin more difficult. In clinical trials with obese mice, regular injections of the hormone were shown to drastically reduce weight.[22] The clinical trials on humans, however, have had mixed results.[23] The discovery of genetic factors such as leptin is a reminder that individual obesity is not always a matter of personal failing. Rather there are simply some people whose genetic makeup makes it more difficult for them to manage their weight.

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[18] Taubes, *supra* note 16.

[19] Centers for Disease Control and Prevention, *supra* note 15.

[20] Cara B. Ebbeling and Dorota B. Pawlak, et. al, *Childhood Obesity: Public Health Crisis, Common Sense Cure*, THE LANCET, August 10, 2002, at 473.

[21] Rockefeller University, *supra* note 14.

[22] *Id.*

[23] I. Sadaf Farooqi and Susan A Jebb, et. al., *Effects of Recombinant Leptin Therapy in a Child with Congenital Leptin Deficiency,* 9/16/99 NEW ENG. J. MED. 879884 (1999).

B.

Environmental Factors

While genetic and hormonal research provides some insight into the causes of obesity, these factors have existed for decades, and even centuries, without the same public health obesity crisis we face today. Therefore, in order to fully understand the increasing obesity rates, it is necessary to also analyze recent environmental changes that may be partially responsible for this epidemic. This requires a close analysis of how the environment helps to increase the frequency of behaviors that encourage eating more and moving less.[24] Thus, "obesity can be viewed not as a result of defective physiology, but as the natural response to the environment."[25] One's genetic makeup then becomes crucially important in determining how a given individual will react to these environmental factors.

The major environmental factor contributing to the national obesity epidemic is the United States' status as a wealthy and highly-developed nation where most people have adequate access to food. Americans now have an abundance of opportunities to consume a wide variety of foods, coupled with a decreasing availability and need for physical activity.[26] While these factors are at least partially to blame for the dramatic increase in American obesity, several other important factors bear discussion. Section III addresses several of these environmental factors and discusses policy recommendations designed to partially address the specific issues each raises. Specifically, this section focuses on the lack of consistent and clear nutrition information available to consumers, problems of increasing portion sizes, the misleading nature of food labeling and the

[24] James O. Hill and John C. Peters, *Environmental Contributions to the Obesity Epidemic*, SCIENCE, May 29, 1998, at 1371.
[25] *Id.*
[26] Anecdotal evidence shows that American's are becoming more sedentary as people become increasingly focused on computers, television and video games. Labor saving devices and the increasing popularity of shopping on-line have all contributed to the inactive populace. It is estimated that approximately one quarter of the American population is completely inactive, however, little hard evidence exists to support this argument. *See* Stacey Hartman, *Obesity is Rapidly Growing Into America's Largest Preventable Health Issue*, THE TENNESSEAN, January 1, 2002.

increasing popularity of fast food and other meals eaten outside of the home.

III.

Specific Factors and Policy Recommendations

A.

Nutrition Policy

An unquestionably important aspect of obesity prevention is promoting the consumption of a healthy diet. While this strategy sounds simple in theory, there is much debate about the actual components of a such a diet. This section discusses the historic formulation of nutrition policy, analyzes the modern conflicting opinions on nutrition policy and provides recommendations for ensuring adequate, comprehensive and non-contradictory information reaches the American public.

1.

Development of Nutrition Policy

Formal nutrition policy in America is set largely by the United States Department of Agriculture (USDA). USDA was created in 1862 to both provide nutrition information to Americans and to guarantee an adequate and safe food supply.[27] Currently, USDA helps fund research into dietary nutrition standards and is the

[27]Emily J. Shaffer, *Is the Fox Guarding the Henhouse? Who Makes the Rules in American Nutrition Policy?* 57 Food & Drug L.J. 371, 380 (2002). This duty is in part shared with the Food and Drug Administration, the agency primarily responsible for the safety of foods provided to consumers.

government agency largely trusted by Americans to be a quality source of accurate nutrition information. However, several scholars have argued that USDA's dual role of protecting both consumers and industry has led it to be a poor nutrition watchdog and to favor the interests of industry over those of the consumer.[28] While a thorough discussion of this issue is beyond the scope of this paper, it is important to note at the outset that there is significant evidence that nutrition policy has not always been created solely for the benefit of the consumer.

While the individual fight against fat has been seemingly ubiquitous throughout American history, the problem is a more recent phenomenon than commonly perceived. In fact, until the 1950s, malnutrition and the lack of an adequate food supply were the major concerns of Americans, and in its infancy, USDA focused on promoting the consumption of nutrient and fat rich foods such as eggs, meat and dairy products.[29] Malnutrition was especially significant during World War II when government officials first recognized the problem in youth. By the 1950s, however, nutritionists and doctors began to realize that over-consumption of food could have negative health effects on people's health.[30] One of the most significant problems discovered was the increasing rates of heart disease and of the hardening of the arteries. Research into heart disease began in earnest in the 1960s and remains an important health issue today. As the link between diet and chronic disease became more salient, researchers began to realize that the mantra of over-consumption was dramatically affecting the health of many Americans. Research attention began to be focused on determining the possible causes of overweight and obesity and the potential health consequences of these conditions. In response to the mounting evidence of the relationship between fatty foods and severe heart disease, the government decided to encourage a diet low in fat and cholesterol in the 1970s.[31]

[28] For an excellent discussion of this argument, see *id.* and Marion Nestle, Food Politics: How the Food Industry Influences Nutrition and Health (2001). Specifically, Shaffer argues that "the government has, by and large, supported the interests of the food industry at the expense of individual and public health interests where these two sets of interests have come into conflict."

[29] Shaffer, *supra* note 27 at 384.

[30] *Id.*

[31] *Id.*

As part of its role as public educator, USDA also adopted formal nutrition recommendations for Americans. In 1956, USDA introduced the first such tool, the Basic Four, which encouraged consumption of foods within what has grown to be known as the four basic food groups: fruits and vegetables, meats and poultry, grains, and dairy products. Americans were instructed to eat foods from each of these groups daily. In 1990, USDA developed the more sophisticated Food Guide Pyramid that provided more specific instructions as to the actual serving recommendations for a variety of foods including carbohydrates, fats, fruits and dairy products.[32] Over the last decade, the Food Guide Pyramid has grown in popularity and is now easily recognizable. However, the Pyramid has not changed since its creation over a decade ago despite developments in nutrition research that call into question some of its dietary recommendations. The next section discusses these new developments and articulates several of the current debates within the area of nutrition policy.

2.

The Modern Nutrition Debate

The development of nutrition policy has been both revolutionary and contradictory. It is generally understood that not all people lose weight in the same way and that certain dieting techniques may work for some and not others.[33] The debate over the exact constituents of the ideal American diet has always been hotly contested, and at various times in the development of nutrition policy, Americans have been encouraged to follow different dietary regimes. One such dietary recommendation that emerged in the last 15 years is the emphasis on reducing fat and cholesterol consumption. In 1990, a National Cholesterol Education Program

[32]For an online version of the Food Guide Pyramid, *see* http://www.usda.gov/cnpp/pyramid.htm (last visited April 4, 2003).
[33]Marilyn Larkin, *Little Agreement about How to Slim Down the USA*, The Lancet, November 2, 2002, at 1400.

report concluded that even individuals not at risk for heart disease should follow a diet substantially lower in fat and cholesterol than the average American diet.[34] This report was signed by 38 federal agencies and health organizations including the American Medical Association, the American Public Health Association and USDA.[35] Although USDA had already supported such statements, this was the first time that the Food and Drug Administration (FDA) endorsed the recommendation regarding fat consumption. This stance was not without its critics. Soon after the report was published, many nutritionists voiced concerns about the lack of data to support this claim and its efficacy for individuals not at risk for heart disease, including older people, women and children.[36] These contrarian voices were met with great resistance from the supporters of the report and largely discredited by this high-powered group of organizations.

Shortly after this report became public, low-fat and fat-free foods became commonly available in grocery stores, and consumers immediately responded. These replacement products generally offered a substantial reduction in the amount of fat (particularly saturated fats known to have worse health effects), but generally did not have a substantial corollary reduction in calories. Unwitting consumers, seeing the well-marked low or reduced-fat labels,[37] took this as a green light to eat proportionally more of the new low-fat products.[38] Consequently, sales of fat-free and reduced-fat products jumped from $18 billion in 1993 to $30 billion by 1997, inspiring more companies to develop these "healthier" versions of their products.[39] Food labeling revisions, which are discussed in greater detail below, came at the heels of these new health recommendations. The new labels gave specific fat content information on every product that consumers began to use

[34] Gina Kolata, *Report Urges Low-Fat Diet for Everyone*, N.Y. Times, February 29, 1990, at A1. Specifically, the report urged consumers to keep fats at 30 percent or less of total caloric intake, and further reduce saturated fats to 10 percent of caloric intake. The panel also encouraged individuals to consume less than 300 milligrams of cholesterol a day.

[35] *Id.*

[36] *Id.*

[37] FDA has established necessary criteria for foods making certain claims about their nutrient content. Specifically, in order to be considered a "fat-free" food, the product must contain less than 0.5 grams (g) of fat per serving. To be "low-fat" a product must have 3 g or less of fat per serving for products containing 30 g or less, or 2 tablespoons or less per 50 g of the product. To be considered "reduced-fat" the product must have at least 25 percent less fat per serving than its reference food.

[38] Michael Fumento, The Fat of the Land 58 (1997). Several popular nutrition authors, most notably Dean Ornish, author of Eat More, Weigh Less, fueled this fire in the early 1990s by stating that, while calories do count in weight loss, consumption of dietary fat is by far the greatest factor dieters should consider.

[39] *Id.* at 70.

in making purchasing decisions. One study reports that of individuals who consult food labels when making purchasing decisions, 72 percent make decisions based on the fat content, while only 9 percent consider the calorie content.[40] Despite the low-fat trend, studies indicate that fat consumption has not decreased at all. Although the percentage of calories consumed as fat has decreased in the average diet, this is only because Americans now eat more calories than they did 20 years ago, and because these calories are increasingly coming from lower-fat carbohydrates.[41] Therefore, while fat consumption has remained steady or increased, its percentage of the American diet has decreased because of the corresponding increase in the consumption of other foods.

Within the last several years, an increasing number of nutritionists have argued that fat should not be the primary focus of weight-conscious dieters. Supporters of diets similar to the Atkins diet[42] that focus on decreasing consumption of carbohydrates and increasing consumption of fats and proteins, think the focus on fat content has been misguided. This recent nutrition revolution comes on the heels of a long debate over the merits of Atkins-type nutrition programs. When the Atkins diet was introduced in the early 1970s, the American Medical Association attacked the diet as dangerous and misguided.[43] The diet directly contradicts the USDA Food Guide Pyramid that gives carbohydrates the coveted position at the base of a balanced diet. However, popular perception of the Atkins diet has changed, as can be evidenced by recent media attention and by its increasing popularity. A 2002 study financed by the Atkins Institute and conducted at Duke University found that the diet might be more effective than originally anticipated. Of the 120 overweight study subjects, those who were placed on the Atkins diet lost 31 pounds, while those on the American Heart Association's popular Step 1 diet lost only 20 pounds.[44] Moreover, participants on the Atkins diet had a

[40]Food Marketing Institute and Prevention Magazine, *Shopping for Health* 15 (1997).

[41]Bonnie Liebman, *Big Fat Lies: The Truth about the Atkins Diet*, Nutrition Action Health Letter, *at* http://www.principalhealthnews.com/article/bellhowelll/103242770 (November 2002).

[42]First introduced in 1972 by Dr. Robert Atkins in Diet Revolution, the Atkins diet encouraged dieters to eat decadent, high fat foods such as red meat, cheese, butter and eggs, but proscribed the eating of starches, carbohydrates and sugars, even those naturally occurring in fruit.

[43]Taubes, *supra* note 16.

[44]CBS.com Health, *Atkins Study Surprises Doctors*, *at* http://www.cbsnews.com/stories/2002/11/18/health.shtml (Novem-

larger increase in High Density Lipids, often called "good cholesterol," and a greater drop in triglycerides than Step 1 dieters.[45] Despite these results, critics of the Atkins diet remain concerned about the as yet unknown long-term effects it may have on its followers. Preliminary research into this topic has delivered no clear answers, but has suggested that possible ill effects such as kidney damage and increased heart disease may result from the over-consumption of red meats and other foods high in saturated fats.[46]

In addition to the rebirth of the Atkins diet, the general health benefits of carbohydrates has recently been challenged. With the emphasis on reducing fat and cholesterol consumption, many people now over-consume carbohydrates as replacement foods.[47] Carbohydrates now constitute approximately 50 percent of all calories consumed in the average American diet, the majority of which are consumed in the form of breads, sugars, sodas and cookies.[48] This increased carbohydrate and sugar consumption can have unanticipated affects on the functioning of the body. Foods commonly known as "simple" carbohydrates[49] are broken down more quickly by the body into sugars and stored as fat, whereas proteins or fibrous foods take longer for the body to digest.[50] This rapid breakdown and digestion also affects insulin and blood sugar levels that in turn may affect appetite and metabolic functioning.[51] People who ascribe to this "endocrinology" perspective argue that as carbohydrates are broken down into sugars, they enter the blood stream and signal a release of insulin, thereby raising its levels in the body. When insulin levels are high, the body burns calories just ingested rather than burning already stored fat for fuel. Increasing insulin production on an on-going basis can lead to insulin resistance, the result of which is a decrease in the body's ability to burn fat stores as

ber 18, 2002).

[45] *Id.*

[46] Walter Willett, Eat, Drink, and Be Healthy 48 (2001).

[47] *Id.* at 85.

[48] *Id* at 87.

[49] *Id.* at 98. Willett rejects the classification of carbohydrates as either simple or complex, a common taxonomy used by nutritionists to distinguish between carbohydrates such as white bread or rice and whole wheat bread or brown rice. Instead, he urges consumers to focus on the difference between whole grain and refined grain products, and to increase consumption of the former and reduce consumption of the latter. Whole grain products may not always be easy to detect but should generally be listed on the ingredients label as whole wheat, whole oat, whole rye, etc.

[50] *Id.* at 88.

[51] *Id.*

energy.[52] Although the specifics of this claim have not been proven, scientists are beginning to study this question in greater depth.

Researchers are also exploring the relationship between insulin production and hunger, although this is a less scientifically understood area. Insulin generally works to suppress appetite, and when it is released, it signals the body to stop eating. Scientists are now exploring whether increased insulin production resulting from an over-consumption of sugar and carbohydrates can disturb the bodies natural reaction to this substance, rendering its appetite suppression ability null.[53] This hypothesis is closely related to the effect of insulin on blood sugar levels discussed above. Because carbohydrates are generally digested as sugars, their consumption leads to an increase in blood sugar levels which in turn triggers insulin production. Researchers are now trying to determine if insulin stays in the system longer than it takes for blood sugar to return to normal levels. This is important because as blood sugar declines, the body feels hungry. If this decrease in blood sugar is not tied to a corresponding decrease in insulin, the body will burn only what is immediately ingested without ever resorting to burning fat stores.[54] Arguably, foods that did not create such high spikes in blood sugar would not similarly affect its levels and may not create the same insulin-related problems.

An additional outgrowth of the low-fat emphasis is the replacement of fat with substitutes, most commonly in the form of processed sugar such as high fructose corn syrup. Consumers who pay attention only to the fat content of products may not realize that fat is simply being replaced with refined sugars that increase the caloric content of the foods they are eating.[55] In addition to the increasing quantity of sugars used as fat substitutes, consumption of sugar generally is also on the rise. It is estimated that soft drinks alone provide one-third of all refined sugar in our diets, making them the single greatest source of sugar in the American

[52] Taubes, *supra* note 16.

[53] *Id.*

[54] *Id.*

[55] Because the regulations regarding low or reduced fat claims make no reference to the caloric content of foods, consumers are not guaranteed that a low-fat food also contains fewer calories. In fact, because of added sugars, these foods may in fact be higher in calories. Paula Kurtzweil, *The New Food Label, Making it Easier to Shed Pounds*, FDA CONSUMER, July-August 1994 [hereinafter Kurtzweil, *The New Food Label*].

diet.[56] Similarly to other sugars, sugar in soda that is not immediately expended as energy is stored by the body as fat.[57] Moreover, fructose, the type of sugar most commonly contained in soda, has been found to be more readily convertible into fat than other sugars, and also does not trigger the release of insulin, which, as mentioned above, works to signal the body that it is full.[58]

Nutritionists are also questioning the expediency of this emphasis on low-fat and high-carbohydrate diets endorsed by the USDA Food Guide Pyramid and other nutrition agencies and organizations. Particularly, critics worry that the over-emphasis on reducing fat ignores the fact that not all fats are unhealthy. Walter Willett of the Harvard School of Public Health has emerged as a preeminent figure in nutrition research and as one of the biggest critics of governmental dietary recommendations. He has developed the Healthy Eating Pyramid as an alternative to the USDA Food Guide Pyramid.[59] According to Willett, the key to a healthy diet is a balance of a variety of foods without any single emphasis on one food group, similar to the typical Mediterranean diet.[60] He resists demonizing carbohydrates across the board, and rather encourages consumption of more fibrous, whole grain products that digest more slowly.[61] Willett is also not an Atkins diet proponent and criticizes the diet for failing to distinguish between healthy unsaturated fats and unhealthy saturated or trans fats.[62] Generally, Willett endorses approaching eating from a perspective of balance and reasonableness. While this approach to eating seems rational and appealing, it lacks the fad-like quality that attracts people to follow a low-fat diet or carbohydrate-free diet. Consequently, it is questionable whether people will latch on to this nutrition advice with the same fervor.

[56] Michael F. Jacobson, *Liquid Candy: How Soft Drinks are Harming Americans' Health*, *at* www.cspinet.org/sodapop/liquid_candy.htm (last visited March 12, 2003). Soft drinks are estimated to contribute a fifth of all calories in the adult diet and make up an even greater proportion of calories for youths.

[57] Michael Waldhotz, *Let's Subtract Added Sugar From Our Diets*, WALL ST. JOURNAL, February 20, 2003, at D3.

[58] *Id.*

[59] For an online version of this alternative food pyramid, *see* http://www.hsph.harvard.edu/now/aug24 (last visited February 7, 2003).

[60] *Too Many Carbs in Your Diet: A Discussion with Walter Willett*, *at* http://abcbews.go.com/sections/community/DailyNews/chat_willett02010 (January 8, 2003). Willett recommends eating a rough proportion of 40 percent carbohydrates, 30 percent fat and 30 percent protein, although there is a great deal of flexibility in those percentages. He notes that these percentages are similar to those of the typical Mediterranean diet which is roughly comprised of a similar 40-40-20 proportion.

[61] WILLETT, *supra* note 46 at 96.

[62] Liebman, *supra* note 41.

3.

Nutrition Information Solutions

The current discord in the dieting arena has been confusing to consumers who are struggling to eat a healthy diet. Marketing forces and media tendencies to center on sensationalistic and dramatic dieting research skews the type and quality of information consumers receive. As shown above, the government has also played a significant role in shaping the modern eating habits of Americans, and was likely responsible for the greatest recent health trend, the proliferation of the low-fat diet. Now that these health claims are coming under attack, it is clear that more research needs to be done to determine the relative merits of the current competing dietary recommendations. This area simply needs to be better explored, with more research money targeted toward testing the claims of the Atkins diet and studying the effects of carbohydrate and fat consumption on metabolic systems. The National Institutes of Health is currently undertaking a year long study of the effects of the Atkins diet on 360 participants that is scheduled to be completed by the end of 2003.[63] This study and other research in this area may help provide a clearer roadmap to people interested in eating a healthy diet and may have substantial effects on reducing the incidents of obesity. While the government cannot necessarily stem the tide of fad dieting practices completely, it can help promulgate healthy eating recommendations and provide consumers with important information about optimum nutrient balance.

[63]CBS.com Health, *supra* note 44.

B.

Portion Sizes

A second environmental factor commonly cited as contributing to the obesity epidemic is the increasing portion sizes of American food products and meals. As obesity rates have risen over the last 30 years, so have the sizes of the daily food portions that American's consume.[64] The increase in portion sizes means that on average people are consuming more calories, and some experts now believe this increased caloric intake is the single greatest cause of obesity. USDA reports that the available food supply in the United States increased 15 percent between the years of 1970 and 1994.[65] This corresponded to a similar increase in caloric consumption, which rose 200 calories per person per day during a similar time period.[66]

Standard serving sizes were established by FDA as a rough measure of "the amount of food customarily eaten at one time."[67] This amount, referred to as the "reference amount," was derived from a series of nationwide food consumption surveys.[68] The reference amount is typically what is referred to as one serving on the FDA mandated Nutrition Facts label. FDA serving sizes are generally similar to those found on the USDA Food Guide Pyramid with some exceptions.[69] However, the serving sizes set by FDA are arguably less accurate in light of the increase in the average portion size Americans now consume. This section discusses the changing

[64] Shannon Brownlee, *Portion Distortion: You Don't Know the Half Of It*, Washington Post, December 29, 2002, at B1. For example, McDonald's first introduced a "large" size of french fries in 1972. However, the name is somewhat of a misnomer in modern terms because its size of 3.5 ounces is less than what a medium french fry order is today. Soda sizes have also undergone dramatic increase in size with the 6.5 oz average serving size in the 1950s increasing to the 20 oz single serving commonly sold today. Jacobson, *supra* note 56.

[65] Greg Crister, Fat Land: How Americans Became the Fattest People in the World 28 (2003).

[66] *Id.*

[67] United States Department of Agriculture Center for Nutrition Policy and Promotion, *Serving Sizes in the Food Guide Pyramid and on the Nutrition Facts Label: What's Different and Why?*, Nutrition Insights, *at* http://www.usda.gov/cripp/Insights/Insight22.pdf (December 2000).

[68] Paula Kurtzweil, *Nutrition Facts to Help Consumers Eat Smart*, *at* http://www.fda.gov/fdac/special/foodlabel/facts.html (last visited March 25, 2003) [hereinafter Kurtzweil, *Nutrition Facts*].

[69] Jacob M. Apfel, *Portion Distortion and Public Perception: How Serving Size Guidelines are Over-Serving and Under-Serving the Consumer*, *at* http://leda.law.harvard.edu (2002). When these sizes vary, the USDA sizes tend to be smaller than those on FDA labels. This size difference can be explained by the different purposes of these systems; FDA's system is used for comparative shopping purposes and USDA's is used for establishing dietary goals.

perception of food consumption and its contribution to the obesity epidemic, as well as potential methods of educating consumers about portion size increases and the subtle but important ways it changes consumption patterns.

1.

The Birth of the Super-size

Studies show that the increase in portion sizes can be found not just in the fast food industry or in traditional restaurants, but most startlingly, also in the home. Food vendors from Starbucks to McDonald's have both created and responded to the demand for increased portion sizes from consumers. This dramatic increase in portion sizes is uniquely American, as evidenced by the smaller size menu offerings in European and Asian branches of major American fast food chains.[70] The fast food industry in particular has led the move to increased portions by using them as a tool both to attract and maintain market support. Value meals, for example, were introduced in the mid-1980s by fast food companies as an effort to pair high profit-margin products such as french fries and soft drinks with less profitable products like hamburgers that cost more to produce.[71] Similarly, super-sizing was created by these companies as a method of attracting more consumers with larger portion sizes for minimal amounts of extra money.

Economically speaking, the practice of super-sizing is the ideal profit making scheme for restaurateurs. As a basic rule, only 20 percent of the production cost of a food item results from the cost of the actual food components.[72] The remaining 80 percent of the cost is from marketing, employee salaries, insurance and other forms of business overhead. This is true whether the item is a large soda at the local fast food joint or a high-priced sandwich at a chain delicatessen. Because the marginal cost increase for larger portions is

[70] Lisa R. Young & Marion Nestle, *The Contribution of Expanding Portion Sizes to the US Obesity Epidemic*, Amer. Jour. of Pub. Health. Vol. 92, at 246-249 (2002) [hereinafter Young, *The Contribution*]

[71] Crister, *supra* note 65 at 23.

[72] Brownlee, *supra* note 64.

minimal, this practice is extremely profitable for food manufacturers that face the cost of overhead regardless of the quantity of food sold. Additionally, customers attracted by larger portion sizes psychologically feel as though they have gotten a better deal if they are able to acquire more food for only slightly more money.

2.

Evidence of Increasing Portion Sizes

Several studies have provided empirical support for the claim that American's are now eating larger portion sizes than in the past. A 2002 study of consumption patterns indicated that portion sizes for meals consumed outside of the home are increasing.[73] The researchers compared the current sizes of market portions with those offered in the past, and with the USDA and FDA serving size standards. Researchers found that, with the exception of white bread, consumer portion sizes generally exceeded these standards and "almost universally exceed the size of those offered in the past."[74] The largest of such increases occurred in the cookie category with an excess of 700 percent over USDA standards.[75] Other carbohydrate heavy foods such as bagels, muffins and pasta exceeded the standards by 480 percent.[76] Moreover, researchers found that identical recipes in classic cookbooks such as the *Joy of Cooking* contain the same ingredient amounts as in the original versions, but now list a reduced number of servings per recipe. The conclusion reached from this study is that larger food portions are increasingly available and are becoming the norm.

Another recent study attempted to offer the first quantifiable evidence that portion sizes were increasing not only in restaurants, but also in the home.[77] Researchers complied data from two earlier studies[78] and used

[73] Young, *The Contribution*, *supra* note 70.

[74] The authors also indicate that when certain foods were originally introduced to the market they came in one standardized size that is smaller than what is currently offered in the market. For example, the current serving size of foods such as hamburgers, soda and french fries, the traditional fast food fare, are now two to five times the size of the originals.

[75] *Id.*

[76] *Id.*

[77] Samara Joy Nielsen & Barry M. Popkin, *Patterns and Trends in Food Portion Sizes, 1977-1998*, 1/22/03 JOUR. OF AMER. MED. ASSOC. 450453 (2003).

[78] Researchers used the Nationwide Food Consumption Survey to compile the data from 1977. They compared this data to the Continuing Survey of Food Intake by Individuals in 1989 and the supplemental research in 1996. The sample size for the

food grouping methods to separate the different types of food consumed.[79] The study showed that portion sizes and overall energy intake increased significantly between 1977 and 1996 for all food groups except pizza. The food groups with the largest portion size increase included salty snacks, with a growth of 93 calories per serving, Mexican food, with a growth of 133 calories, soft drinks, with a growth of 49 calories, hamburgers, with a growth of 97 calories and french fries, with a growth of 68 calories.[80] The increases were generally consistent over all age groups with minor exceptions in hamburger and soda consumption for young children and adults over 60.[81]

This study causes good reason for concern. Eating an additional 10 calories per day, if unaccompanied by a corresponding increase in physical activity, translates into an extra pound of weight gain per year.[82] Furthermore, because studies have shown that people are more likely to underreport and under-assess their own calorie consumption, especially of nutrient poor food, these results may be artificially depressed indicating that the problem may be more severe than estimated.[83] In one study, half of subjects underestimated their food intake by as much as 20 percent.[84] Another study found that 81 percent of subjects underestimated their caloric intake by an average of 565 calories a day.[85]

It is also important to note that portion sizes are not increasing in a consistent pattern across the board. Rather, the most rapid increase is in the fast food industry, followed by increases in the home, with the lowest increase in portion sizes found in restaurants. Although the exact percentage of meals consumed

three surveys combined was 63,380 people ages 2 and older.

[79]The researchers utilized the food-grouping system of the University of North Carolina at Chapel Hill for the purposes of this study. This system groups food into 74 descriptive and nutrient based sub-categories based on the USDA nutrient composition tables.

[80]Nielsen, *supra* note 77.

[81]*Id.*

[82]Rob Stein, *Supersizing Hits the Dinner Table; Study Traces Rise of Obesity to Larger Portions of Food Served at Home, Too*, WASHINGTON POST, January 22, 2003, at A2.

[83]Karen Barr, *To Eat: Perchance to Lie*, N.Y. TIMES, August 20, 1995, at B6.

[84]*Errors in Reporting Habitual Energy Intake*, NUTRITION REVIEWS 49, at 215-17 (1991).

[85]Walter Mertz et al., *What Are People Really Eating? The Relation Between Energy Intake Derived from Established Diet Records and intake Determined to Maintain Body Weight*, AMER. JOUR. OF CLIN. NUTR. 54, at 291-95 (1991).

within the home is debated, the range falls somewhere between 50[86] and 66 percent.[87] With such a high percentage of meals eaten in the home, this increase in consumption may be the most alarming.

Additionally, because people are generally conditioned in their eating patterns, many nutritionists are concerned that increasing portion sizes will actually train people to eat more. As portion sizes increase, people's perception of a normal meal size becomes distorted. Since people generally feel obligated to eat the food on their plates, they are more likely to over-consume if given greater quantities of food. Studies have shown that, when presented with larger portion sizes, people often will eat what is given to them even if they are full before finishing.[88] This tendency has been identified in children as early as age five. While younger children under five were found to eat until satiety, regardless of the quantity of food remaining on their plate, older children consumed more food when given a larger amount.[89] This study concluded that "as children grow older, they become less responsive to internal hunger and satiety cues and more reactive to environmental stimuli."[90] Therefore, increasing portion sizes may actually cause individuals to eat more, distorting perceptions of normal serving size and creating a demand for larger and larger portions.

3.

Smart-sizing: Policy Proposals to Counter the Increase in Portion Sizes

One possible solution to this problem is to regulate portion sizes of foods consumed outside of the home. Because regulating within the home where the majority of meals are consumed is not feasible, commercial

[86] Young, *The Contribution*, *supra* note 70.
[87] Steven C. Anderson, *Editorial: The Origins of a Supersize Nation*, Washington Post, January 13, 2003, at A20.
[88] Ebbeling, *supra* note 20.
[89] *Id.*
[90] *Id.*

regulation is the best alternative. Some commentators have urged the restaurant and fast food industries to take responsibility for reducing the prevalence of obesity by voluntarily agreeing to reduce the size of the portions they serve. While voluntary regulation would be highly efficient and inexpensive to administer, its feasibility is questionable. Restaurants, especially fast food companies, spend billions of dollars on advertising every year, precisely for the purpose of encouraging people to consume *more* food. Expecting them to embrace the voluntary reduction in portion sizes seems unlikely, especially since it is a major method through which these outlets attract customers. Rather, what is needed is some form of portion size regulation that will prevent restaurants from serving up such unhealthy sized portions to customers.

Regulating in this area is complex both in terms of pragmatic and legal concerns. Pragmatically, were these regulations to succeed, it is unlikely that enforcement would be easy or feasible given the sheer number of restaurants and food suppliers. Moreover, while these regulations would reduce the amount of food a consumer could purchase as a single item, it would not prevent the purchase of additional items such as appetizers, or a second order of fries. This regulation would also either have to be inapplicable to buffet or all-you-can-eat settings or else render these traditional institutions unlawful. Popular support for these programs would be difficult to garner, and any such effort would be met with great resistance from the restaurant industry and consumer groups. Moreover, it is likely that these regulations would face legal difficulties and be challenged as unfair restraints on trade and as impinging consumer freedoms. In today's anti-regulatory climate, it would also be difficult to muster political support for such invasive government regulation.

Eliminating government regulation as a feasible solution to this problem, several other policy recommendations can be promoted to deal with this issue. In addition to encouraging voluntary compliance from restaurateurs, a consumer education effort about the increased portion sizes might be useful. This campaign

could report on the research showing how serving size perception has changed and highlight the relationship between portion size increases and obesity. Because studies indicate that people tend to eat the amount of food they are given, however, it is unlikely that simply warning consumers that portion sizes are on the rise will have a great impact on their choices. Several other proposals discussed in detail in other sections of this paper may also be effective in addressing this problem, such as enforcing labeling requirements for foods sold in chain restaurants. States and localities could also levy taxes on food portions that exceed a certain set portion size and use the extra tax revenue to fund information campaigns on healthy eating, or earmark the money specifically for obesity research.

C.

Food Labeling

Food labeling is an important tool in enabling consumers to make informed decisions about their consumption choices. However, some question exists as to whether current labeling practices are effective informational tools helpful in making purchasing decisions. This section provides an overview of the history of regulation in this area as well as makes recommendations to increase the quantity of information provided to the consumer and ways to ensure consumers are able to understand this information.

1.

History of Food Labeling and Common Perceptions

Food labeling has been under the purview of FDA since the Federal Food, Drug and Cosmetic Act (FD&C Act) was passed in 1938. In order to prevent foods from having false or misleading labeling, Congress mandated that FDA monitor this practice as part of the FD&C Act.[91] Most relevant to this discussion, Congress empowered FDA to require minimal food labeling on all products, including a statement of the name of the food, its ingredients, the net quantity of the contents and the distributor's contact information.[92] Additionally, the Act required nutrition information labeling for food with special dietary uses, such as vitamin supplements, hypo-allergenic food and fortified food. Although these labeling requirement were revisited by FDA periodically, the most comprehensive changes occurred in the early 1990s.[93] In an effort to improve consumer awareness and loosen other regulatory restrictions on the food industry, Congress passed the Nutrition Labeling and Education Act of 1990 (NLEA). The NLEA ensures that consumers will be given full nutrition information on nearly every product they buy in order to allow them to make informed, and ideally, healthy choices.[94] FDA set standards for serving sizes and required all food labels to include the percentage of the USDA Recommended Daily Allowance of certain essential micro and macronutrients.[95] Since 1994, FDA has required that this information be placed on all packaged products in a uniform, easy

[91] Peter Barton Hutt & Richard A. Merrill, Food and Drug Law: Cases and Materials 37 (2^{nd} ed. 1991).
[92] *Id.*
[93] *Id.* at 39-42; Apfel, *supra* note 69.
[94] 21 U.S.C. 343.
[95] Specifically, with few exceptions, labels must include information about total calories, calories from fat, total fat, saturated fat, cholesterol, sodium, total carbohydrate, dietary fiber, sugars, protein, vitamin A, vitamin C, calcium and iron. Additionally, the labels may also contain information about calories from saturated fat, stearic acid (for meat and poultry products only), polyunsaturated fat, monounsaturated fat, potassium, soluable fiber, insoluable fiber, sugar alcohol, other carbohydrate, beta-carotene and other essential vitamins and minerals. This is an exhaustive list and manufacturers are not permitted to include any additional information. A limited category of foods may qualify for a simplified food label if they contain insignificant amounts of seven or more of the mandatory dietary components, including total calories. Kurtzweil, *The New Food Label*, supra note 55. FDA is also considering adding additional labeling requirements for trans-fats although no such regulations have yet been passed. USDHHS Press Release, *FDA proposes New Rules for Trans Fatty Acids in Nutrition Labeling, Nutrient Content Claims and Health Claims*, *at* http://www.fda.gov/bbs/topics/NEWS/NEW00698.html (November 12, 1999).

to read format called "Nutrition Facts."

This improved form of mandatory product labeling provides several benefits to consumers. In addition to increasing the total amount of information on packages, it also eases product comparisons. Because of standardized serving sizes, shoppers can compare two similar products to determine which may have the least amount of fat or calories per serving.[96] This labeling is also useful to consumers on special diets, such as people suffering from hypertension who must avoid sodium, or individuals concerned about cholesterol levels. Dieters and people generally concerned with nutrition are able to see the exact contents of their foods and can use this labeled information to ensure they maintain a balanced diet. One study indicates that over half of all consumers use the nutrition information when purchasing a product for the first time, and that 28 percent of those individuals stopped purchasing a given product after learning about its poor nutrition content.[97]

While there is no doubt that the new nutrition labels have improved the quantity and quality of information available to the customer, there is some skepticism as to whether the labels are as helpful as they were intended to be. In a series of surveys conducted to determine people's understanding of food labeling as it relates to serving sizes, the vast majority of people surveyed overestimated the amount of food in an individual serving, indicating their inability to accurately read and interpret these labels.[98] The subjects were shown a variety of products including a can of soup, a package of candy, a soda and an apple and asked to estimate the number of servings in each.[99] The vast majority of subjects[100] underestimated the serving size

[96]Foods within similar product categories must have consistent serving sizes. For example, different types of snack foods such as popcorn, potato chips and pretzels must have consistent serving sizes. FDA has established such 139 food-product categories. Kurtzweil, *Nutrition Facts*, *supra* note 68.

[97]Food Marketing Institute, *supra* note 40 at 15, 17.

[98]Apfel, *supra* note 69. This discussion is closely related to the above discussion of the general increase in the perception of portion size.

[99]Specifically, the products were a 92.1 gram bag of Nacho Cheesier Doritos, a 150.3 gram package of M&Ms, a 92 gram package of Mini Oreos, a 319 gram can of Campbell's Green Pea or Chicken Soup, an 8 fluid ounce bottle of Vanilla Coke and an apple.

[100]The researcher did note a slight variation by age and gender with middle age women being the most accurate predictors of the correct serving size. Regardless, this group still underestimated the number of servings by as much as 20 percent. There was no significant variation when the responses were sorted by race.

for all products except the apple by as much as 56 percent, and at an average of 29.4 percent. Subjects were also asked whether they used nutrition information when making purchases or to gain nutrition information. On average, 62 to 64 percent said they used this information at least sometimes, if not often. Subjects also assessed their own nutrition knowledge, and consistently gave themselves slightly above average marks for their ability to interpret food labeling. In one study group, the researcher found an inverse relationship between self-assessed knowledge and portion size prediction ability, with subjects claiming greater knowledge actually making larger errors in prediction.

This study indicates that food labels may not be as effective as they were intended to be in changing consumption habits and informing consumers of nutrition information. The combination of this considerable underestimation of serving size, self-perceived nutrition savvy and heavy reliance on nutrition labeling in making dietary choices highlights a significant problem in the use of food labels by consumers. Consumers are making purchasing decisions by relying on their own misperception of nutrition labeling, indicating significant problems with using this as a primary method of encouraging healthy diets. The following section discusses several policy recommendations that address the problems of consumer understanding of nutrition labeling.

2.

Proposed Labeling Changes

An initial policy recommendation is to revise the already existing "Nutrition Facts" food label in order to make it more understandable to the average consumer. Simple alterations in the format and content of

the label could make reading and understanding the information presented easier. One such proposal is to include the total number of calories in each individual package or product. At present, food labels give the total calories per serving and the total number of servings per container, leaving it to the consumer's math skills to calculate the actual caloric content of the entire product. Research indicates that consumers not only have a hard time understanding the concept of multiple servings within one package, but are also generally unable to calculate the total calorie figure from the information provided.[101] Prominently including the total number of calories per product, in addition to per serving, will eliminate much of this confusion and allow individuals to better appreciate the number of calories they are consuming.

Second, an arguably deceptive practice in food labeling involves the labeling of smaller, "single serving" packages commonly used in selling snack foods and beverages. A survey of these product labels indicates that many of these packages actually contain more than one serving. For example, a 20 ounce soda, a quantity commonly consumed in one sitting, actually contains 2.5 servings.[102] People who do not pay close attention to label detail may see the caloric content and believe that it represents the total amount in the entire package. This is increasingly confusing given the fact that a 12 ounce can of the same product is considered one serving. Therefore, although the larger size soda container has less than twice the content of the single serving aluminum can, it contains over twice as many servings. The lack of a consistent serving size between these two product sizes is deceptive and leads to consumer confusion. To reduce this confusion, any package that meets certain size standards that would lead it to be perceived as a single serving should be labeled as such, rather than expecting the consumer to intuit the number of servings from the labeling.

[101] Apfel, *supra* note 69. The researcher asked children ages eight to thirteen and their parents to determine the number of calories in a 92.1 gram bag of Nacho Cheesier Doritos that contained 3.5 servings with 140 calories per serving. None of the children came up with the correct answer of 490 and most believed the total calories in the package to be only 140. The parents fared somewhat better with 59 percent able to reach the correct answer.

[102] The standards for serving size vary for goods packaged and sold individually. Specifically, packages that are less than 200 percent of the applicable product reference amount can be considered as single servings. Therefore, because the reference amount for soda is 8 fl. oz, a 12 fl. oz. aluminum can is considered a single serving because it does not exceed the reference amount by more than 200 percent. There is an exception for products that have a reference amount of greater than 100 g or 100 ml, such that if the product contains between 150 and 200 percent of this amount, the manufacturer can chose whether to label the product as one or two servings. Kurtzweil, *Nutrition Facts*, *supra* note 68.

Third, serving sizes could be changed to reflect consumer understanding of portion sizes. If, in fact, consumers regularly underestimate the number of servings per package by an average of 30 percent, changing nutrition labeling to reflect this over-estimation may provide consumers with a better idea of what they are eating. The question then becomes whether serving size labeling should reflect what consumers understand a serving to be, or what has been set by FDA as a reasonable amount to consume in one sitting. One fear is that changing labeling might lead consumers to think that the larger serving sizes are an appropriate amount of food to consume despite the larger number of calories they would contain. But, if individuals will consume this amount regardless of what is set as a serving size, it is arguably better that this information actually reflect the amount of food they are likely to eat, giving them a better sense of their nutrient intake. Increasing the serving size may also make obtaining nutrition information for people who consume smaller portion sizes more difficult, as they will then be forced to extrapolate from the data provided.

A fourth labeling policy change that may help raise consumer awareness is to place a warning label on products to facilitate identification of high calorie foods. Standards could be articulated for what qualifies as a high calorie food, but because fats have a higher caloric value than carbohydrates or proteins, it is likely that higher fat foods would fall into this category. The warning labels could simply state: "Warning: This is a high calorie food." Warnings would be placed in a highly visible location on the front panel of the product and an explanation of how this determination was made could be placed on the back of the product where there is adequate space. The explanation could read: "Using a scientifically set standard, FDA has determined that this food is high in calories. There is a high correlation between diets high in calories and obesity." Because nearly half of all consumers do not consult the nutrition labeling currently on packaged foods, providing this visible warning may be an effective means of encouraging them to be more aware of their eating habits.

It is questionable how effective this strategy will be given the general tendency of people to ignore warning labels. This labeling also does not address the fact that high calorie foods can be consumed as part of a healthy diet, even though over-consumption of these foods may lead to obesity. Regardless of these potential drawbacks, warning labels are an expeditious way to easily alert consumers to the high caloric content of certain products. Alternately, it may be advisable to include calorie information on the front of all packaged foods, thereby uniformly drawing consumer attention to caloric content and enabling them to identify and select foods that are low in calories. Placing this information within clear visibility may remind consumers to be mindful of the caloric content of their foods and would make quick comparison shopping between products easier than when nutrition information is only contained on the rear or side panel.

An additional labeling change recommendation is to extend the current labeling requirements to foods sold in different contexts, such as in movie theaters, fast food chains or convenience stores. The labeling requirements could be identical to those required on packaged foods sold in the grocery store. Because of their uniformity, these food products are easy to label, and therefore, these requirements would not place too severe of a burden on their producers. These products are the most appropriate for labeling restrictions because they are so prolific and are generally mass marketed and produced, unlike foods served in more traditional restaurants which vary to a greater degree and are typically not produced in a uniform manner. Although requiring some form of nutrition information at restaurants is encouraged, far greater variation within restaurant fare makes regulation more difficult. Therefore, requiring only foods designed, advertised and sold as mass market items to carry these labels would be an easier and more efficient regulatory measure than requiring similar labeling at all restaurants.

Finally, print advertisements for food products could also be required to contain the FDA mandated Nutrition Facts labeling. In order to prevent dramatically increasing advertising costs to manufacturers by requiring them to include this information on all advertisements, these regulations would only apply to advertisements

of a certain size, for example a full page ad within a magazine. Requiring information only on larger ads would reduce the burden on food producers and would merely require them to add minimal information to already large sized advertisements. FDA regulations currently require that print advertisements for pharmaceuticals contain listings of the side effects and potential hazards of these drugs. FDA could work with the Federal Trade Commission (FTC) to ensure food advertisements are similarly informative to consumers.

Several of the labeling changes discussed above are relatively easy to create and enforce as FDA already mandates specific labeling for all products sold in the United States. Because manufacturers are already subject to this form of regulation by FDA and other government agencies, it is likely some additional requirements would be politically and logistically feasible, making this an avenue worthy of further exploration and action. Regulation of non-packaged and fast food may be a more difficult area to regulate as this would be a new area of labeling intervention for FDA. However, because of the mass-produced quality of these foods, and their overwhelming popularity, these regulations may be easier to justify than regulating other types of prepared foods.

D.

Fast Food Litigation

With the rise in two income families and the push to an ever longer work week, Americans are now busier than ever, and modern society has moved to a state of near constant stress. In response to these time pressures, people increasingly seek quick and low cost food sources with little regard for their nutritional value. As a result, Americans now eat more meals out of the home than they have at any other time in history.[103] Food producers create and advertise easier and faster foods with reduced preparation time, often

[103]Young, *The Contribution*, *supra* note 70. Food consumed outside the home accounted for only 34 percent of the average

at the expense of nutritional value. On average, foods eaten outside the home are higher in fat and lower in nutrients than foods prepared within the home, and therefore, arguably contribute more to obesity than home-cooked foods.[104] A majority of food consumption outside the home occurs at fast food restaurants around the country. There are now estimated to be 170,000 fast food outlets in the US, making fast food readily available to the majority of all Americans.[105] From 1970 to 2001, American spending on fast food increased from approximately $6 billion to $110 billion.[106]

These numbers cause a great deal of concern because consuming fast food raises many of the problems discussed above, including the availability of large portion sizes from super-sizing and the prevalence of foods high in saturated and trans fat and calories.[107] These factors all contribute to the nutritionally depraved nature of fast food, making its consumption an important focus of public health efforts to reduce obesity. Although it is clear that the majority of individual food consumption occurs within the home, because of its predominance, the fast food industry has a central role in influencing the eating patterns of Americans. The above numbers indicate the popularity of these foods, and the following discussion will illuminate several of the additional problems fast food consumption raises. In particular, it is now alleged that although fast food products contain the same basic ingredients as foods consumed within the home, they are so dramatically altered through food processing that their actual nutritional characteristics are drastically worse than similar or homemade foods.[108]

To date, nutrition specialists, parents and others concerned with fast food have attempted a variety of strategies attacking this industry. These strategies mainly focus on advertising restrictions, increasing taxes

food budget in 1970 and had risen to 47 percent by the late 1900s.

[104] *Halting the Obesity Epidemic*, *supra* note 5.

[105] *Id.*

[106] Eric Schlosser, Fast Food Nation: The Dark Side of the All-American Meal 3 (2001). These statistics were provided by the National Restaurant Association.

[107] Ebbeling, *supra* note 20.

[108] Plaintiff's Amended Verified Complaint at ¶¶ 3, in Pelman v. McDonald's Corporation [hereinafter Amended Complaint].

on fast food products, mandating these products carry nutrition labels and banning the sale of fast food in schools. These policy recommendations have been met with hostility from the fast food industry and are unlikely to be voluntarily adopted by these corporate giants. In light of these difficulties, some fast food opponents are developing alternative strategies to force fast food companies to react to the growing obesity trends. The main effort in this area has been investigating the possibility of class action litigation against the fast food industry designed to force these desired changes. This section will analyze the current efforts in this area, as well as explore the possibility of future litigation efforts. Additionally, it will discuss the types of possible remedies available through litigation efforts, including many of those discussed in other sections above. In discussing the possibility of constructing a feasible class action lawsuit, this section relies on the success of the tobacco litigation to inform possible litigation strategies against fast food companies.

1.

Current Litigation Efforts

In 2002, Steven Hirsch, a plaintiff's attorney from New York City, filed two lawsuits against the fast food industry in the first attempt at class action litigation against these entities. Modeled on similar theories in the recently successful tobacco litigation, these lawsuits alleged that the fast food companies used deceptive practices in making and marketing their products that in turn caused the plaintiff's severe medical problems and obesity. The first suit was filed by Caesar Barber, an overweight Bronx man who stated he ate at McDonald's four to five times a week.[109] In his complaint against McDonald's, Wendy's, Burger King and

[109]Geraldine Sealey, *Whopper of a Lawsuit*, *at* http://www.abcnews.go.com/sections/us/DailyNews/fatsuit020725.html (July 26, 2002).

Kentucky Fried Chicken, he alleges that these entities had engaged in deceptive marketing practices in failing to disclose the ingredients of their food and by not offering healthier options on their menus.[110] This initial lawsuit has been delayed, and in the interim, a second lawsuit has been filed by Hirsch on behalf by three teenagers who all claim adverse health effects caused by the regular consumption of fast food at McDonald's. According to the plaintiff's affidavits, all three regularly eat at McDonald's at an average rate of about three to five times a week, and all are overweight or obese.[111] All three also stated that they were attracted by McDonald's happy meals and prizes at a young age.[112]

Specifically, the plaintiffs in the second suit alleged five causes of action against McDonald's. The first two counts were based on deceptive acts and practices in violation of the New York State Consumer Protection Act.[113] These counts alleged that McDonald's failed to adequately disclose the ingredients and health effects of their food, and challenged the marketing practice of specifically targeting children to consume their products. The third count alleged in the alternative that McDonald's acted negligently in selling nutrient poor foods.[114] The fourth count similarly alleged that McDonald's failed to warn customers of the health ramifications of eating their products, and the final count was also a negligence claim asserting that McDonald's negligently sold food products that were physically or psychologically addictive.[115]

Defendant McDonald's brought a motion to dismiss this complaint that was decided in early 2003 by Federal Judge Robert Sweet. In dismissing the complaint, Judge Sweet stated that "legal consequences should not attach to the consumption of hamburgers and other fast food fare unless consumers are unaware of the dangers of eating such foods."[116] For the first two counts under the Consumer Protection Act, Judge Sweet held that the plaintiffs "failed to cite to specific advertisements or public statements that may be considered 'deceptive'

[110] *Id.*
[111] Tawfik Aff., Pelman Aff., Bradley Aff. at ¶¶ 2, 6, in Pelman v. McDonald's Corp. 237 F.Supp.2d 512, 520 (S.D.N.Y. 2003).
[112] *Id.*
[113] Pelman v. McDonald's Corp., 237 F.Supp.2d 512, 520 (S.D.N.Y. 2003).
[114] *Id.*
[115] *Id.*
[116] *Id.* at 517.

on the part of the defendants, and dismissed these counts for lack of specificity.[117] The negligence counts were similarly dismissed because the plaintiffs failed to allege that McDonald's had "produced or distributed a product that is so dangerous that its danger is outside the reasonable understanding of a consumer."[118] Rather, the plaintiffs had merely alleged that McDonald's fare was high in fat, cholesterol, salt and sugar, and therefore unhealthy, failing to satisfy this more difficult standard.[119]

In addition to the claims filed in the original complaint, the plaintiffs supplemented their pleading with four additional claims. The first claim alleged that McDonalds' food products are processed to the point that they are different from, and more dangerous than, similar or typical products.[120] The second claim alleged that the plaintiffs had an allergic sensitivity to the products, the third alleged that McDonald's should have known that consumers would misuse their products, and the fourth consisted of policy arguments based on the Nutrition Labeling and Education Act.[121] Judge Sweet quickly disposed of the latter three claims, stating none had individual merit.[122]

The first claim, however, was met with greater acceptance by the court. The plaintiffs argued that by processing normal foods to great extents, McDonald's created a type of "McFrankenstein" food, the unhealthy attributes of which are "now outside the ken of the average consumer."[123] McDonald's argued that the public is well aware that its food is processed, and that this processing makes their food "more harmful

[117] *Id.* at 527-529. The plaintiff's did mention two specific advertising campaigns, both targeted toward encouraging the daily consumption of different McDonald's products, as well as a statement on McDonalds' website asserting that "McDonald's can be part of any balanced diet and lifestyle," both of which were dismissed as mere puffery.

[118] *Id.* at 522.

[119] *Id.* at 532.

[120] *Id.* at 533.

[121] *Id.*

[122] As to the claim regarding allergic sensitivity, Judge Sweet stated that plaintiffs had not alleged that any of the ingredients in McDonald's products were allergens, and therefore, this claim failed. *Id.* at 536. Judge Sweet dismissed the foreseeable misuse claim citing that the better argument would be that McDonald's products "are unreasonably dangerous for their intended use" which plaintiff's had failed to plead. *Id.* at 537. Judge Sweet also dismissed the claim under the NLEA stating that this claim was completely inapplicable to the case at hand. *Id.*

[123] *Id.* at 535. Judge Sweet specifically discussed the contents of Chicken McNuggets and provided a paragraph-long ingredient list for this product. He mentioned that these McNuggets may be perceived by customers to be a healthier option because they are chicken, however, this product actually contains twice as much fat per ounce as a hamburger.

than unprocessed food."[124] However, Judge Sweet specifically stated that if the plaintiffs were able to better articulate their argument in an amended complaint, they "may establish that the dangers of McDonalds' products are not commonly well known, and thus that McDonald's had a duty toward its customers."[125] In dismissing the case, Judge Sweet granted the plaintiffs leave to amend the complaint, providing several suggestions as to how they could improve their arguments. Plaintiffs subsequently refiled their complaint, incorporating these suggestions into their substantive claims. In their amended complaint, plaintiffs allege four causes of action against McDonald's, the first three alleging violations of the New York state consumer fraud statutes and the final claim sounding in negligence.[126] Specifically, the plaintiffs allege that McDonald's food products are substantially less healthy than the company indicated in their marketing campaigns and website information, and that the company failed to uniformly provide nutrition information at all of its outlets.[127] The amended complaint also alleges that McDonald's negligently marketed their products and created an unknown hazard to the plaintiffs by promoting products that are "dangerous to an extent beyond which was contemplated or understood by the reasonable and ordinary Plaintiff purchaser and consumer."[128] Because McDonald's products are processed to such a great extent, and have added nutrition attributes unknown to plaintiffs, the company failed in its duty to warn consumers of the negative health consequences of a diet that incorporated regular visits to their restaurant. A motion to dismiss this amended complaint is currently pending.

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[124] *Id.* at 536.
[125] *Id.*
[126] Amended Complaint, *supra* note 108 at ¶¶ 58-81.
[127] *Id.* The plaintiffs explicitly cited several advertising campaigns that encouraged regular consumption of McDonald's products and statements by McDonald's the "range of choices on our menu makes it possible for people to eat there three times a day if they wanted to." *Id.* at ¶ 45.
[128] *Id.* at ¶ 2.

2.

Possible Future Litigation Strategies

While the possibility of fast food litigation has been met with great skepticism and negative reactions in the press, supporters point out that this is not unlike the reception the tobacco class actions received when first introduced.[129] Despite their similar history, it is questionable whether the class action lawsuits against the fast food industry will ever meet with the success that the tobacco litigation has achieved, in part because of the variety of factors that play into the successful mass tort class action. This section introduces the necessary components for a successful claim, discusses whether these conditions can be met and addresses how the hurdles identified by Judge Sweet can be overcome.

The first such difficulty identified with class action litigation of this kind is the problem of establishing proximate cause. Even if plaintiffs are successful in arguing in that the fast food industry manipulated food products beyond their recognizable state, Judge Sweet indicated that the plaintiffs would still face the difficulty of establishing proximate causation. The plaintiffs must establish that the defendant's conduct was a substantial cause in bringing about the harm.[130] This requirement is problematic because people consume more food in the home than at McDonald's, making any causal link between fast food and obesity more tenuous.[131] Therefore, as one aspect of proving proximate cause, Judge Sweet indicated that the plaintiffs must be able to show they "ate at McDonalds on a sufficient number of occasions such that a question of fact is raised as to whether McDonalds' products played a significant role in the plaintiff's health problems."[132] The Court estimated that this must be more than once per week.

[129] Nat Ives, *The Media Business: Food Companies are Urged to Act to Deflect Blame for the Nation's Increase in Obesity*, N.Y. Times, December 4, 2002, at C4; Sealey, *supra* note 109.

[130] Restatement (Second) of Torts § 431 (1965).

[131] Ives, *supra* note 129. The link between tobacco and lung cancer is seemingly less tenuous because of the high correlation between smoking and lung disease.

[132] *Id.* at 539.

Even if the plaintiffs established that they ate fast food at least once a week, this does not completely resolve the difficulties associated with establishing causation. Because people presumably eat other unhealthy foods in addition to regularly eating at fast food outlets, it is difficult to say which food source is the most responsible for causing any individual's obesity. Critics argue that the plaintiff's theories would open the floodgate to litigation against other food manufacturers such as soda companies and salty snack producers. However, the fact that these latter products are required to carry ingredient and nutrition labels in a manner readily accessible to the consumer creates a significantly different situation. Although fast food restaurants are required to provide this information to consumers on request, and nutrition information is available over the Internet, there is no nutrition labeling directly placed on fast food items.[133] Furthermore, in their amended complaint, the plaintiffs argue that many McDonald's branches in fact were unable to provide nutrition information when asked.[134] If in fact these foods are being modified such that their actual health consequences are disguised and not easily within consumer understanding, the plaintiff's claim that these products are altered such that their unhealthy attributes are no longer discernible may create the differentiation necessary to limit liability only to fast food.

An additional problem plaintiffs face is the fact that obesity is caused by numerous factors, including activity levels, environment, socioeconomic influences and heredity factors beyond individual control. Therefore, citing any single cause of obesity is impossible. To overcome this causal problem, Judge Sweet stated that plaintiffs must be able to "address these other variables and, if possible, eliminate them or show that a McDiet is a substantial factor despite these other variables."[135] Additionally, the plaintiffs must be able to show that their health problems are in fact obesity related and not due to heredity or other environmental factors.[136]

[133] Amended Complaint, *supra* note 108 at ¶ 41. This is required in the state of New York by a settlement agreement between McDonald's and the state Attorney General that resulted from an investigation in the late 1980s into McDonald's advertising practices. As part of the settlement, McDonald's agreed to provide nutrition information to customers through pamphlets and signs and to disclose the ingredient lists for their products.

[134] *Id.* at ¶ 42.

[135] *Id.*

[136] *Id.*

Because the plaintiffs must make such individualized showings, this calls into question whether this case is appropriate for class certification under the rules governing class actions. Among other requirements to be certified as a class, the plaintiffs must be able to show commonality and typicality.[137] As Judge Sweet noted in a footnote, these requirements may be difficult to satisfy because of the specificity necessary to prove the causal link between obesity and the individual health problems of the plaintiffs. Therefore, because the individual plaintiffs will have different health backgrounds and genetic influences, class certification may be a particularly difficult undertaking.

There are possible ways to narrow the class such that class certification is appropriate and more practical. The class action rule does not require exact congruity between all plaintiffs, therefore, some differences among the class is acceptable.[138] Given the sheer number of obese people in the US, finding individuals with overlapping characteristics may not be as difficult as estimated. The class at issue here could be narrowed by limiting it to people suffering from specific obesity related ailments for which a causal link between the condition and being overweight can be easily established. These individuals could also be required to have similar fast food consumption practices and other eating habits, limiting the possibility that other foods were more directly responsible for their obesity. Although requiring greater similarity among class members may reduce the total size of the class, it may make it possible to sustain a meaningful class action against these companies.

It is also important to note that the tobacco litigation largely succeeded not by proving the actual health effects of smoking in accord with the difficult legal standards articulated above, but rather by proving that companies had carefully designed marketing and manufacturing strategies designed to hide the health effects of their products.[139] This failure to disclose well known health consequences of smoking turned

[137] FED. R. CIV. P. 23(a).
[138] *Id.*
[139] Sarah Avery, *Is Big Fat the Next Tobacco?*, RALEIGH NEWS AND OBSERVER, August 18, 2002, at A25. *See also* Pelman,

public opinion against cigarette manufacturers, and was a primary influence in the eventual success of these lawsuits. Rather than focusing on the causal nature of smoking and cancer, juries began focusing on the deceptive marketing practices that these companies used to intentionally attract people to their products.[140] If similar evidence could be found to indicate that fast food companies had intentionally manipulated their products to make them more addictive, or so as to obscure their nutrition components, these lawsuits may fare better than expected.[141] If advocates can locate smoking gun materials indicating that these efforts were undertaken intentionally, their chances of success would dramatically improve. If a complaint against fast food companies is able to survive dispositive motions and reach the discovery stage, it is possible that such evidence may be brought to light.

3.

Possible Remedies for Successful Lawsuits

If a class action litigation effort were sustained against the fast food industry, myriad forms of both injunctive and monetary damages may be available to the plaintiff class. This litigation may provide the ideal impetus for the industry to adopt many of the policy recommendations already indicated in this paper. This section addresses several proposals for relief that should be considered by advocates seeking to effect change in this industry's practices. These suggestions in many ways mirror the injunctive relief attained through the tobacco litigation, signaling that they are not without merit or feasibility, and may be translated into the fast food context.

supra note 113 at 527 in which Judge Sweet lists several examples of deceptive acts and practices of the tobacco industry that explicitly point to deceptive public acts on their part to disguise or negate the health effects of smoking.

[140] *Battling Against Big Food*, The Economist, December 21, 2002.

[141] Avery, *supra* note 139. This article indicates that researchers are currently working on determining if in fact foods high in sugars and fats are psychologically, if not physiologically, addictive. If researchers are able to establish this fact, the plaintiffs would need to plead with some specificity the actual attributes of McDonald's products that lead them to be addictive. They would also need to establish other factual premises such as whether addiction results from merely eating these products once or if more sustained consumption is necessary, and whether children are more susceptible to these addictive qualities. Pelman, *supra* note 113 at 542.

A primary form of relief in this litigation would involve various injunctive remedies against fast food companies.[142] One such measure would require all fast food outlets to place large placards in restaurants and at drive-through window menus that contain the nutrition information for the products being sold. The products themselves could be required to carry the FDA Nutrition Facts label commonly found on all packaged foods. These products are ideal for this type of labeling as they are designed to be uniform across multiple outlets and are sold with few modifications. This requirement would not be unduly burdensome on fast food producers who are already required to have this information available on their web sites and at customer request. Fast food products could also be required to carry warning labels similar to those proposed earlier for high calorie packaged products.

An additional form of relief could be to compel large fast food companies to offer a wider selection of menu items, including vegetarian and reduced calorie and fat products. This would require companies to expand their menu offerings, but not preclude them from selling their standard fare. Such relief would provide healthier alternatives to individuals attracted to the outlets because of time concerns or convenience. Similarly, fast food restaurants could be precluded from offering super-sized menu items, reducing the tendency of individuals to over-consume fries and soda with their meal. Alternately, companies could be required to use labels that facilitate comparison between super-sized and regularly sized products.

Although it is unlikely that a court would directly order either of these forms of relief because of their invasive character, this type of agreement may be reached through settlement negotiations between the parties. In fact, many of these settlement provisions may be mutually advantageous as they could assist fast food companies in attracting a broader customer base and in avoiding future liability for similar claims. Many companies are voluntarily creating new products in an effort to capture a larger market share by appealing to

[142]For the purposes of this section, the term "fast food companies" will be construed in the manner in which it is normally used, i.e. to refer to large corporations, operating multiple food outlets, selling similarly standardized products and emphasizing speed of service and convenience.

health conscious consumers.[143] Additionally, fast food companies interested in avoiding future legal problems may recognize the value of offering a healthier menu selection and of adequately warning consumers about the nutritional value of their products. Arguably, these measures would provide a defense to future claims as these companies could argue that consumers are informed and do have multiple options, and therefore, should be accountable for the ramifications of their individual consumption choices.

As an additional settlement term, fast food companies could agree to engage in public awareness efforts directed at encouraging healthy food consumption and highlighting the importance of exercise in preventing and correcting overweight and obesity. This would be similar to the mandated public service announcements large tobacco companies are required to broadcast that warn viewers of the risks of their products. The campaigns required here could be considered as less onerous because they would not affirmatively require these companies to discuss the specific negative health aspects of their food, rather they would merely be required to promote healthy nutrition and a balanced diet, leaving it up to the consumer to draw their own conclusions about where a fast food menu item might fit into this dietary regime. Similar nutrition educational campaigns have met with some success in areas where they have been undertaken. For example, a seven-week campaign in West Virginia encouraging consumption of 1 percent milk over full-fat milk doubled the communities intake of low-fat milk from 18 to 41 percent of total milk sales.[144] While education campaigns are not the most direct form of public policy change, they serve an important role in changing public perception about products, and have been proven effective in the tobacco context.[145]

Fast food marketers could also be required to reduce their use of advertising targeted directly to children, an issue discussed in greater detail in Section IV below. These restrictions could include the elimination

[143] Melanie Wells, *Happier Meals; The Owner of KFC, Pizza Hut and Taco Bell is Spending Less on Its Image and More on Its Food*, Forbes, January 20, 2003, at 20. Subway has also adopted a recent media campaign focusing on individuals who have successfully lost weight by following a diet that incorporates regular meals at the restaurant.

[144] *Halting the Obesity Epidemic*, *supra* note 5. Total milk consumption also rose 25 percent. The campaign consisted of radio and television advertisements and public relations efforts that resulted in a total cost of only 22 cents per person.

[145] Cornelia Pechmann & Ellen Thomas Reibling, *Anti-Smoking Advertising Campaigns Targeting Youth: Case Studies from USA and Canada*, Tobacco Control 2000, at ii18-ii31.

of the Happy Meal and other prizes given to children as part of their meals. Because these prizes are one of the main attractions for children to eat at these outlets, eliminating this practice will work to reduce demand among children and cause them to eat fast food less regularly.[146] Finally, states could also enter the litigation effort and seek reimbursement for state contributions to Medicare and Medicaid used to treat obesity related diseases.

E.

Other Policy Recommendations

In addition to the specific efforts discussed above, several other proposals to combat the obesity epidemic are worth mentioning. The first is an effort to effect the consumption habits of consumers by taxing unhealthy food while simultaneously subsidizing healthier alternatives, thereby encouraging a change in eating patterns. The second effort is more directly targeted to incentivizing healthy behaviors and improving the fitness levels of Americans through instituting new employment practices that reward individuals who meet certain health and weight standards.

[146] SCHLOSSER, *supra* note 106 at 262.

1.

Subsidy and Tax Proposals

One proposal to improve the diets of Americans centers around shaping nutrition choices through individual's pocketbooks. By subsidizing "healthy" foods that meet certain nutritional standards, these products would be made cheaper, and therefore, possibly more desirable to consumers. Some proponents of this strategy argue that reducing the cost of fruits and vegetables by half could result in doubling their sales.[147] The main problem with this recommendation is how to define what qualifies as a healthy food. A simple answer would be to restrict the subsidy only to fruits and vegetables and other whole foods,[148] although drastically limiting this coverage may preclude the sweeping impact that proponents envision.

Including all fruits and vegetables is also arguably over-inclusive as the health benefits of these foods are somewhat dubious. Many fruits have a high sugar content that counters the otherwise healthy attributes of the food. Nutritionists agree, however, that these naturally occurring sugars are less harmful than foods containing added sugar because the fibrous nature of the fruit aids in sugar metabolization.[149] Similar concerns arise with the subsidization of some vegetables, such as celery, that have little nutritional value. However, while the nutrient content of these foods might not be high, neither are their caloric values. Encouraging people to snack on low-calorie fruits and vegetables in lieu of chips and cookies is arguably desirable and may breed better overall eating habits among individuals.

Regardless of the exact nutritional values of these particular foods, this problem highlights the greater difficulty of establishing the specific scope of foods that will be considered as healthy. Extending the scope too

[147] *Halting the Obesity Epidemic*, *supra* note 5.

[148] Whole foods are generally considered as foods that are in their unprocessed, unrefined or unpeeled state, such as whole grains, nuts, seeds, fresh vegetables or fruits. The lack of processing ensures that these foods do not lose their valuable nutrients or fiber content.

[149] John Woodford, *You Can Eat His Words*, MICHIGAN TODAY, *available at* http://www.umich.edu/~newsinfo/MT/96/Fall96/mta1f96.html (June 1996); United States Department of State, *International Meeting to Focus on Fruit and Vegetable Consumption*, *at* http://usinfo.state.gov/topical/global/hiv/03011301.htm (January 13, 2003).

broadly would create the risk that food producers would simply fortify otherwise unhealthy or nutritionally insignificant foods to make them meet some standards of nutrient value. Therefore, a more robust conception of nutrient content would be necessary that included not only positive requirements for what the foods must contain, but also limits on undesirable contents like sodium, fat and cholesterol. Although these additional factors may limit the inclusion of otherwise unhealthy foods, such fine distinctions may also render this proposal inefficient and impractical.

A second closely related proposal focuses instead on taxing unhealthy foods, thereby making them more expensive for consumers to purchase. This "snack tax" has already been introduced in several jurisdictions for reasons other than health related concerns. During budgetary shortfalls in the early 1990s, several states including Maine, Maryland, Oregon and California, passed snack taxes to raise needed revenue. Generally, these taxes added an additional percentage tax exclusively on foods defined by the state as snack foods. Starting in the late 1990s, many states repealed these taxes when revenues were again on the upswing. The taxed goods varied by state but generally included pretzels, potato chips, nuts and snack mixes.[150] For example, Maine enacted one of the most comprehensive snack taxes that taxed crackers, ice cream, frozen yogurt, pies, muffins and breakfast bars at 5.5 percent.[151] These original incarnations of the snack tax were criticized for being "unfair, regressive, and discriminatory" by the Grocery Manufacturers of America.[152] Critics also pointed out the lack of consistency in foods that were taxed. In Washington, D.C. for example, popped popcorn was taxed at 5.7 percent while unpopped popcorn was not taxed at all.[153]

A newer incarnation of the snack tax was introduced in 2000 by Kelly Brownell and Michael Jacobson.

[150]Office of Tax and Revenue for Washington D.C., *District Repeals Snack Tax, Offers Sales Tax Holiday*, *at* http://cfo.dc.gov/services/tax/news/2001/july/07_06_01.shtm (July 6, 2001).
[151]Maine Revenue Services for Tax Professionals, *Snack Tax Repeal*, Maine Tax Alert, December 2000 Vol. 10, No. 5.
[152]Grocery Manufacturers of America Press Release, *Maine Snack Tax Repeal "Victory for the Consumers"*, *at* http://www.gmafoods.com/news/docs/NewsRelease.cfm?docid=554 (April 18, 2000).
[153]Office of Tax and Revenue for Washington D.C., *supra* note 150.

These authors suggested that adding a one-cent tax on candy, chips, soft drinks and other snack foods would raise $1.8 billion that could be targeted toward health promotion programs.[154] Unlike current taxes used to discourage cigarette smoking, the purpose of the snack tax is not to financially dissuade consumers from buying these snacks. Rather, this small tax would create much needed revenue to support policy initiatives similar to those discussed in this paper. It would also provide needed support to governments at the local, state and federal level, which could earmark the funds for health care costs of obesity related disorders. Alternatively, proponents could advocate for a more sweeping tax to dissuade the purchase of these products by making them significantly more expensive than healthier items. However, such a tax would likely meet with greater resistance from consumers and would arguably be difficult for jurisdictions to enact.

The snack tax is likely to encounter many of the same practical difficulties discussed above in relation to the healthy food subsidy. In particular, defining what food products should be covered by the tax would be a difficult undertaking. One suggestion would be to simply tax all foods generally classified as snack foods, including chips, soda, candy, ice cream, cookies and cakes. While simplifying the coverage may make this proposal feasible, it also leaves out many foods with similarly undesirable nutritional attributes, such as full fat dairy products and rich spreads or sauces. It also would only target packaged foods, omitting foods sold in restaurants or fast food outlets. An additional problem that is not similarly associated with the subsidy is that any form of sales tax is necessarily regressive and impacts the poor to a greater extent than the rich. While it would be a uniform across-the-board tax, the burden would fall disproportionately on consumers who have less expendable income. While limiting the amount of the tax to one cent per item would reduce this burden considerably, further research into these impacts may be necessary before such a proposal can be implemented.

[154] Jacqueline Weaver, *Study Proposes Tax on Snack Foods to Fight Obesity*, Yale Bulletin and Calendar, *available at* http://www.yale.edu/opa/v28.n34/story22.html (June 23, 2000).

2.

Encourage Physical Activity Through Employment Policies

Increasing rates of physical inactivity are also an important component of the rise in obesity. In order to turn this tide, drastic measures to incentivize physical activity should be explored. One possible area of reform is employee benefit programs administered by both private industry and government. Because employers are forced in part to pay the rising cost of health care via employee health plans, they have some incentive to promote the health of their employees.[155] In private industry, obesity related health problems that cause absenteeism and worker incompetence carry large productivity costs that are largely passed on to consumers, but that also make companies less competitive. Therefore, in the interest of maximizing their own bottom lines, encouraging employees to be active and healthy is a valid and important employer strategy.

Employers should also create programs to encourage their employees to commute to work by biking or walking, and provide financial rewards and other recognition for participants. This money could be derived from savings on parking expenses and other transportation incentives employers currently offer. Corporations like Nike have similar programs that reward employees for biking or running to work by entering them into contests for prizes. Many employers currently encourage health conscious behavior in employees by subsidizing the cost of gym membership, by sponsoring and organizing walks during lunch breaks and by planning work related outings that encourage activity over passive food consumption. Employers could also make environmental changes to their office space to encourage healthier life styles, including providing healthier food in vending machines and encouraging the use of stairs over elevators. These programs are easy to adopt and relatively uncontroversial. Many employers already engage in one or more of these strategies,

[155] *Obesity, the Toxic Environment and the Triple Bottom Line: Its Time to Treat Obesity as a Sustainability Issue*, *at* http://www.deepgreenonline.com/obesity_001120.htm (last visited March 25, 2003).

and it is worth the effort to encourage other employers to follow suit.

A more controversial proposal would be to encourage employers to offer reduced insurance premiums to employees meeting certain health and weight standards. For example, if an individual falls within a normal BMI range and illustrates certain standards of fitness,[156] they could qualify for a monthly insurance premium reduction. This reduction would be justified by the fact that healthier employees require less costly medical attention – although this correlation is admittedly far from absolute. A related proposal would provide increased vacation time to workers who consistently do not use their sick leave as a way of rewarding them for their increased productivity.

Both of these strategies raise concerns about implementation and feasibility. An initial concern is with the assessment process for determining who should qualify for the insurance break. It is likely that a significant number of people would pass the BMI test, but could not meet the physical requirements and vice versa. However, in order to make this program practical, it would be necessary to draw limits on its use and to require that both criteria be met. There is also likely to be objection from employees who use their sick leave for non-obesity health related reasons and do not feel it is equitable to reward some employees simply because they do not have these medical problems.

[156]For example, individuals could be asked to perform certain physical activities such as running one mile on a treadmill while maintaining a certain heart rate.

IV.

Obesity and Children

Similarly to adults, children's body shape, metabolism and weight are affected by a variety of environmental and genetic factors. Childhood obesity also carries with it many of the same health problems associated with adult obesity, including increased occurrences of hypertension, type 2 diabetes and asthma.[157] Because of these similarities, many of the policy changes recommended in Section III would in part also benefit children. However, more directly targeted strategies to address childhood obesity are important as well.

Current research indicates that important steps can be taken even pre-birth to stem the obesity epidemic in youth. Studies have shown that prenatal nutrition and consumption affect both children's food tastes and their predisposition to obesity later in life. One such study indicates a direct correlation between maternal obesity, the birth weight of the child and their subsequent predisposition to obesity.[158] A second study indicates that fetuses may begin to develop tastes for the types of foods their mothers consume while pregnant.[159] The flavors of the foods ingested by the mother are transferred to the fetus through amniotic fluid, giving babies their first taste experiences and highlighting the decidedly integrated nature of adult and child obesity.

Because childhood obesity is a relatively new concern, there is no current, comprehensive policy proposal to deal with the different aspects of this problem. This section provides several broad based policy recommendations to address obesity in children. Because many children's eating and health habits are developed in part due to parental modeling and influence, relying on parents to reduce the incidence of obesity in chil-

[157] Ebbeling, *supra* note 20.
[158] *Id.*
[159] Jennifer O'Brien and Leann Birch, *Early Experience with Food and Eating: Implications for the Development of Eating Disorders*, *in* Body Image, Eating Disorders and Obesity in Youth: Assessment Prevention and Treatment 24 (J. Kevin Thompson & Linda Smolak, eds. 2001).

dren may be unwise given the increasing rates of adult obesity. Therefore, the recommendations discussed below will focus on interventions at the institutional level that do not rely at their core on the participation and support of parents. Specifically, this section analyzes issues dealing with the school lunch program, the closely related topic of vending machines and fast food in schools, the current state of school physical education programs and the role of advertising directed at children in fueling the desire for nutrient poor foods.

A.

School Lunch Program

Our nation's schools have become a centrally important place for child meal consumption. Millions of American public school students eat breakfast, lunch and snacks at school each day. The National School Lunch Program (NSLP) was founded in 1946 with the passage of the National School Lunch Act.[160] Housed in USDA, the program was implemented to provide "nutritionally balanced, low-cost or free lunches" to public school children.[161] In its first year, approximately 7.1 million children participated in the program.[162] This number has grown tremendously, and in 2002, approximately 28 million children participated in the program.[163] Of these participants, approximately half received meals for free and an additional 10 percent received meals at a reduced cost.[164] In 1966, USDA launched a pilot of the School Breakfast Program (SBP) to serve similar purposes as the NSLP.[165] After its initial success, the SBP was made permanent in 1975.

[160] 42 U.S.C. 1751.
[161] United States Department of Agriculture, *National School Lunch Program Frequently Asked Questions*, http://www.fns.usda.gov/cnd/Lunch/AboutLunch/AboutNLSP.htm (last visited March 20, 2003).
[162] *Id.*
[163] *Id.*
[164] *Id.*
[165] United States Department of Agriculture, *School Breakfast Program Fact Sheet, at* http://www.fns.usda.gov/cnd/Breakfast/AboutBFast/faqs.htm (last visited April 17, 2003).

In 2002, an estimated 8.2 million children participated in the program, 6.8 million of whom received meals for free or a reduced price.[166] In 1998, the NSLP was extended to include snacks served in after school programs to children 18 years of age and younger.[167] Combined, these programs cost approximately $10 billion annually, including the cost of free or reduced meals and snacks.[168] Because of the numbers of children participating in these programs, they are an ideal method of targeting the consumption habits of American youth.

The National School Lunch Act addresses the necessary nutrition content of the foods served in these programs. Most importantly, all school meals are required to be consistent with the Dietary Guidelines for Americans (DGA).[169] The DGA contains general recommendations that encourage eating various foods, reducing saturated fat content to below 10 percent of total caloric intake, reducing sodium and cholesterol amounts and including significant amounts of grain products, vegetables and fruits.[170] School lunches are also required to provide one-third of the Recommended Daily Allowance (RDA) of key nutrients, and school breakfasts are required to provide one-fourth.[171] Unfortunately, while the nutritional value of school meals is improving, data from the mid 1990s indicate that "the vast majority of children fail to meet the dietary recommendations for daily intake of saturated fat, total fat, fiber and sodium."[172] This data also shows that teenagers consume more soda and fruit drinks on a daily basis than milk.[173] USDA's own data from the mid 1990s indicate that school foods had the highest density of saturated fats of all food outlets and had higher than recommended amounts of sodium.[174] Even in schools where meals manage to meet the USDA

[166] *Id.*
[167] *Id.*
[168] Elizabeth Becker & Marian Burros, *Eat Your Vegetables? Only at a Few Schools*, N.Y. TIMES, January 13, 2003, at A1.
[169] 42 U.S.C. at 1758, §9(f).
[170] 7 CFR Ch. II 210.10 (1-1-01 Edition)
[171] 42 U.S.C. at 1758, §9(f).
[172] Memorandum from the United States Department of Agriculture, *National School Lunch Program/School Breakfast Program: Foods of Minimal Nutritional Value*, (January 16, 2001) [hereinafter Memorandum, *National School Lunch*].
[173] *Id.*
[174] Food and Drug Administration & National Institutes of Health, *Healthy People 2010: Nutrition and Overweight*, *at* http://www.healthypeople.gov/Document/HTML/volume2/19Nutrition.htm#_Toc490383126 (last visited March 25, 2003) [hereinafter *Healthy People 2010*].

guidelines, students still may have unhealthy choices available, largely as a result of the presence of vending machines and fast food a la carte items, a factor discussed in greater detail below. Therefore, because these more appealing alternatives are available, there is no guarantee that students will consume the healthier school lunch if it is made available to them.

Federal agencies have made some efforts to improve the nutrition of children in schools, in part motivated by the establishment of Health People 2010. This initiative recognizes obesity as one of the top ten leading health indicators and contains a set of health goals set by the Secretary of Health and Human Services to address this problem.[175] Objective 19.15 of Healthy People 2010 specifically addresses the area of school nutrition and mandates that children's meals and snacks at school contribute to a good overall diet.[176] USDA currently provides education, training and technical assistance to school meal planners to help them in developing appealing and healthy food options for their students.[177] USDA also provides creative educational materials and action kits for parents and teachers to encourage children to consume nutritious foods and adopt healthy behaviors.

As an additional effort, USDA has instituted a new pilot project designed to encourage the consumption of vegetables and fruits. The agency has given $6 million in funding to 100 select schools to test the feasibility and effectiveness of the program.[178] In these schools, fresh and dried fruits and fresh vegetables will be made available throughout the day. These foods will be distributed through a variety of methods, including kiosks, "grab-and-go" snack options for kids arriving at and leaving school and snacks provided both in the classroom and in after school programs. The program, created as part of the 2002 Farm Bill, is designed to study how increasing the availability of free healthy snacks will affect student eating behaviors, such as their

[175] Memorandum, *National School Lunch*, *supra* note 172.
[176] *Healthy People 2010*, *supra* note 174.
[177] United States Department of Agriculture, *Child Nutrition Programs: Frequently Asked Questions*, *at* http://fns.usda.gov/cnd/menu/faqs.htm (last visited March 7, 2003).
[178] Memorandum from the United States Department of Agriculture, *USDA Awards Schools $6 Million to Promote Fresh Fruit and Vegetable Consumption for Children*, *at* http://www.fns.usda.gov/cga/PressReleases/2002/PR-0406.02.htm (September 26, 2002).

snack choices and consumption of school lunches.[179]

Local communities are also taking steps to improve the nutrition content of the meals served in their local schools, such as developing partnerships between local farmers and schools to provide fresh produce to school cafeterias.[180] School districts in 17 states have adopted these programs and received community support despite the added cost and complication of such a program. Fresh vegetables are not only more expensive to purchase than processed foods, but are also more expensive to prepare, requiring longer on-site cooking time and more skilled preparation.[181] Most foods served through the NSLP are pre-processed and easier to serve to students. Therefore, schools adopting these novel partnership arrangements face increased, non-subsidized preparation costs. As an alternative to farmer-school partnerships, other schools are encouraging students to consume fresh produce by helping them grow their own gardens on school grounds.[182] The students are responsible for growing the produce, harvesting it and preparing it for lunch. By actively participating in the production of their own food, students learn important information about nutrition, and gain skills they can then use to start gardens of their own.

B.

Fast food and Vending Machines in Schools

In addition to the school lunch program, another important problem in student nutrition is the prevalence of fast food and vending machines in schools. Soda and candy vending machines have long been staples in the nation's public schools. According to the Centers for Disease Control, 98 percent of public high

[179] *Id.*
[180] Becker, *supra* note 168.
[181] *Id.*
[182] For an example of a methodology promoted to develop a school garden program, *see* http://aggie-horticulture.tamu.edu/kindergarden/child/school/sgintro.htm (last visited April 17, 2003).

schools, 74 percent of middle schools and 43 percent of elementary schools currently receive money from vending machine contracts.[183] Some schools earn $50,000 or more annually simply from vending machine commissions.[184] A more recent phenomenon is the rising sponsorship of schools by various soft drink and other food manufacturers. Fast food companies agree to sell their products for reduced prices in order to build brand loyalty with student consumers, and also to provide a needed food source for students.[185] This trend began in the early 1990s with several pioneering school districts in California and Colorado. In Los Angeles, Pizza Hut contracted with the public schools to sell their pizzas during lunch time.[186] By 1999, 95 percent of California high schools also sold brand name fast food products as a la carte menu items.[187] However, complaints began to arise regarding the caloric content and portion size of these alternative foods. While USDA strictly regulates portion size in the NSLP, the a la carte items are not similarly regulated. In fact, the pizzas sold by these retailers were twice the size of the USDA pizza provided in school lunches and provided more than twice the number of calories.[188]

Similarly, in 1993, a Colorado Springs school district allowed Burger King ads to be placed inside the school and on school buses. Other school districts soon followed suit and signed contracts with a variety of food companies, sometimes for amounts in excess of several million dollars.[189] Contracts between soda companies and school districts, often called "pouring contracts," have also grown in popularity. In exchange for granting one soda company exclusive sales rights to a particular school, the company pays the school a commission and often gives it free soda to sell at events for fundraising purposes.[190] The proliferation of these contracts is likely related to the disturbingly high rates of soda consumption discussed in Section III.

[183] Becker, *supra* note 168.
[184] Greg Winter, *States Try to Limit Sales of Junk Food in School Buildings*, N.Y. Times, September 9, 2001, at A1.
[185] Schlosser, *supra* note 106 at 56.
[186] Crister, *supra* note 65 at 46.
[187] *Id.* at 47.
[188] *Id.*
[189] Schlosser, *supra* note 106. According to this source, retailers such as Taco Bell, Subway, Domino's and McDonald's have also entered into these agreements with various districts. One estimate places the percentage of public high schools offering branded fast food at 30 percent.
[190] Crister, *supra* note 65 at 48.

Both parents and other groups have mounted opposition to the sale of foods in vending machines to students, and some reform efforts have been undertaken to address the proliferation of fast food in school cafeterias. In 2001, several members of Congress responded to concerns about vending machine sales by introducing legislation titled the Better Nutrition for School Children Act.[191] If passed, this Act would amend the Child Nutrition Act of 1966 in order to ensure that the NSLP "meets its goals [by] promoting better nutrition among school children and creating lifelong healthy eating habits."[192] The bill specifically precludes the sale, donation or service of Foods of Minimal Nutritional Value (FMNV)[193] in the food service area during the times that school sponsored breakfast and lunch are being served.[194] Although USDA has promulgated regulations that address the sale of competitive foods of minimal nutritional value, these regulations do not preclude donating these foods during meal times.[195] These regulations direct states to control the sale of food in the proscribed times and places, but also allow them to adopt further restrictions on FMNV.

One criticism of the FMNV regulations is that students are likely able to get these same products from other sources regardless of these prohibitions. The regulations only require the machines actually in the food service areas be shut off, which does not preclude schools from keeping machines running down the hall from the cafeteria, within easy access of students. Moreover, even if all the vending machines were shut off during meal periods, enterprising students will learn to make vending machine purchases before lunch or off school grounds, and still consume this fare in lieu of the more nutritious options available to them in the cafeteria. States that have enacted harsher restrictions on vending machine use, such as New York and

[191] Better Nutrition for School Children Act of 2001, Bill #S.745 (introduced April 6, 2001).

[192] Press Release, Maurice Hinchey News, *Hinchey, Leahy Introduce Legislation to Improve Nutrition in School Lunches*, *at* http://www.house.gov/hinchey/051199.htm (May 11, 1999).

[193] FMNV are defined in by the regulation as (i) in the case of artificially sweetened foods, a food which provides less than five percent of the Reference Daily Intakes (RDI) for each of eight specified nutrients per serving; and (ii) in the case of all other foods, a food which provides less than five percent of the RDI of each of eight specified nutrients per serving. The eight nutrients to be assessed for this purpose are - protein, vitamin A, vitamin C, niacin, riboflavin, thiamine, calcium, and iron. The categories of FMNV include: soda water, water ices, chewing gum, certain candies, hard candy, jellies and gums, marshmallow candies, fondant, licorice, spun candy, and candy coated popcorn.

[194] *Id.*

[195] National School Lunch Program Nutrition Requirements 7 CFR 210.11; National School Breakfast Program Nutrition Requirements 7 CFR 220.12.

Maryland that require vending machines to be shut off until after lunch, have found them to be ineffective because they are simply ignored by the school administration.[196] This is in large part because these schools will lose their commission from the soda companies if they do not keep their machines running all day.[197] Making it more difficult for students to get these foods by enforcing these regulations may nonetheless prove somewhat effective. Combining these restrictions with a positive subsidy on healthy foods may be enough to encourage students to make healthier, and more convenient, nutrition choices.

Unfortunately, with schools already financially strapped, it is difficult to preclude them from pursuing surefire revenue streams by preventing partnerships with various food and drink vendors. Many schools already rely on contract dollars from soft drink distributors and fast food outlets in order to secure funding for important programs such as sports and other extracurricular activities. The financial realities of many public schools indicate that simple mandates from Congress to shut off vending machines during school areas may be inadequate. Rather, Congress should consider providing funding to public schools to ensure that they are able to maintain needed school programs without relying on outside commercial interests. Eliminating vending machines from school grounds and halting the sale of high fat and calorie fast foods may in part curb the growing obesity rates among youths and is a strategy with potentially dramatic long-term benefits.

[196] Winter, *supra* note 184.
[197] *Id.*

C.

Physical Education

In addition to nutrition, encouraging physical activity among children and young adults is also key to reducing obesity rates. Physical education (PE) in schools has long been depended on to provide physical activity and training to American students. Student physical education first began in 1850 and was primarily focused on physical training and calisthenics.[198] Since its inception, PE has evolved to include an additional focus on health-related fitness and the development of skills needed "for a lifelong engagement in healthy and satisfying physical activity."[199] At various times in history, American leaders have become more concerned with the fitness status of young Americans. The President's Council on Physical Fitness and Sports was founded in 1958 under President Eisenhower in reaction to the poor fitness levels discovered in American troops.[200] President Kennedy's administration also placed a strong emphasis on fitness, which was partially motivated by Cold War fears about the superior fitness levels of Soviet youths.[201] As education budgets began to shrink in the late 1970s and early 1980s, physical education was one of the first programs cut. The reduction in physical education programs continued into the 1990s with enrollment dropping from 42 percent in 1991 to 25 percent in 1995.[202]

Currently, according to a 1996 Surgeon General report, nearly half of all American youth aged 12-21 are not vigorously active on a regular basis, and about 14 percent of young people report having had no recent physical activity at all.[203] While most school districts across the country require some form of minimal

[198] Judith C. Young, *National Standards for Physical Education*, ERIC DIGESTS, March 1997, at http://www.ericfacility.net/ericdigests/ed406361.html (last visited March 5, 2003) [hereinafter, Young, *National Standards*].
[199] *Id.*
[200] CRISTER, *supra* note 65 at 76.
[201] *Id.*
[202] *Id.*
[203] National Center for Chronic Disease Prevention and Health Promotion, *Physical Activity and Health, A Report of the Surgeon General*, *at* http://www.cdc.gov/nccdphp/sgr/adoles.htm (last visited March 25, 2003).

physical education, the standards vary greatly.[204] By the end of the 1980s, Illinois was the only state to require daily physical education of public school students.[205] Some PE classes now average only ten minutes of actual physical exercise a week.[206] Schools that have retained formal physical education programs face a series of other problems, including large class sizes, lack of adequate time schedules, lack of well-planned curricula and inadequate recreational facilities, all of which have been identified as important components of physical education programs.[207]

The results of this inadequate emphasis on physical education and fitness in our public schools are apparent by the current youth obesity statistics. The Surgeon General report on physical activity and health in America called school-based physical education programs "the most widely available resource for promoting physical activity among young people in the United States."[208] Unfortunately, the statistics show that this potential method of improving the health of children is grossly under utilized. Based on the acknowledged importance of PE to our nation's children, one policy recommendation would be to increase federal funding to schools to allow them to institute better programs capable of having a significant impact on the fitness and activity levels of children. Increased funding could be targeted toward purchasing needed equipment necessary to allow full participation in activities, and toward hiring qualified PE teachers able to develop and promote activity plans for children both while in school and at home.

Even absent additional funding for PE programs, schools can take other steps to focus more attention on health and exercise within the normal school curriculum and encourage students to exercise with their peers.

[204] In 1999, only 29 percent of students attended daily PE classes, down from 42 percent in 1991. Winter, *supra* note 184.
[205] Crister, *supra* note 65 at 69.
[206] Thomas N. Robinson & Joel D. Killen, *Obesity Prevention for Children and Adolescents*, *in* Body Image, Eating Disorders and Obesity in Youth: Assessment Prevention and Treatment (J. Kevin Thompson & Linda Smolak, eds. 2001).
[207] Young, *National Standards*, *supra* note 198.
[208] *Surgeon General Report on Physical Activity & Health*, at 237, *at* http://www.cdc.gov/nccaphp/sgr/contents.htm (1996).

Elementary schools could organize running or basketball clubs during school recesses that would provide structured activities for students. At the middle and high school levels, schools could organize similar events during the lunch hour or as after school activities. These groups could be largely student run and monitored, but participation could be recognized and rewarded by faculty. These clubs could also act as alternatives to organized sports that many students are unable to participate in because they lack certain skills or athletic talent. Schools could also make an effort to inform parents of the importance of activity and could host weekend parent/child activities focused on exercise and health such as basketball leagues or walking or running clubs. Models for these programs could be developed at the federal level and promoted to local school districts and states interested in taking steps toward fighting rising obesity rates among children.

D.

Advertising Restrictions

Television advertising of food products to children is now a multi-billion dollar business.[209] While the specific effects of advertising on consumption choices is debatable, it can be assumed that these marketing efforts are at least partially responsible for the eating habits of today's youth. This section addresses the prevalence of television advertising to children, and the constitutional and other issues surrounding possible regulation of this advertising as well as alternative proposals to limit advertising's effects on children's nutritional choices. In considering the feasibility of these regulations, it is necessary to look both at historical attempts at regulation in this area in the United States, as well as the success of similar current efforts in Europe. By considering the European experience, it is possible to analyze the broader effects of these regulations on the

[209]This discussion is primarily restricted to the effects of television advertising on children because this is the primary medium through which advertisers attempt to reach this demographic. Harriet Marsh, *Children's Choice*, MARKETING, July 15, 1999, at 27.

economics of television broadcasting and marketing more generally.

1. *Food Advertising to Children*

Food companies now spend an average of $13 billion advertising food and drinks to children and their parents, constituting a $5 billion increase in the last decade.[210] Half of all television commercials aimed at children are for food products, the vast majority of which are for soft drinks, fast food and salty snacks.[211] Only 2 percent of all advertising focused on children is for fruits, vegetables or grains.[212] For example, the National Cancer Institute's budget for the 5 A-Day campaign designed to increase fruit and vegetable consumption has an annual budget of only $1 million.[213] Studies also show that children are increasingly gaining consumer power and spending by children under 12 tripled in the 1990s alone.[214] Children aged 12 to 19 spent an $94 billion in 1998.[215] While these statistics do not necessarily account for cost changes due to inflation, they nevertheless indicate a significant trend in this area. As children gain greater consumer power, advertisers have increasing incentives to target marketing efforts at this consumer group.

What is most alarming is the impact these ads have on children's consumption choices. One study has demonstrated that exposing 3 to 5 years olds to 30-second commercials increases the likelihood that they will select the advertised food over other alternatives later in life.[216] Additionally, many researchers doubt children's ability to understand that the purpose of advertisements are to induce them to buy, and instead see them as merely another form of entertainment, leading them to be less critical of commercials.[217] There

[210] Nestle, Food Politics, *supra* note 28. McDonald's alone spent 600.9 million on advertising in 2001, with children being a major target of those ads. Avery, *supra* note 139.

[211] Emilia Askari, *Is Joe Camel Really so Different from Ronald McDonald*? Detroit Free Press, April 16, 2002. A similar phenomenon can be observed in England where one consumer group estimates that 95 percent of all commercials aimed at children were for foods high in fat, sugar or salt.

[212] *Id.*

[213] *Halting the Obesity Epidemic*, *supra* note 5.

[214] Askari, *supra* note 211.

[215] *Id.*

[216] Dina Borzekowski & Thomas N. Robinson, *The 30-Second Effect: An Experiment Revealing the Impact of Television Commercials on Food Preferences of Preschoolers*, J. Amer. Diet. Assoc. 42 (2001).

[217] Angela J. Campbell, *Ads2Kids.com: Should Government Regulate Advertising to Children on the World Wide Web?* 33 Gonz. L. R. 311, 321 (1998).

is also some indication that children do not begin to question and doubt advertising until the age eleven or twelve.[218] Moreover, children, unlike adults, generally do not turn the television off or change the channel if they are inundated with excessive advertisements on TV.[219] Critics of advertising regulation see advertising as a way to create more consumer-savvy children who understand the workings of the market.[220] They argue that instead of restricting access to advertising, it should be promoted for the social good it provides to children in the form of consumer education. As children become more sophisticated in response to societal influences, paternalistic arguments about protecting children may wane. However, because of the immutable developmental vulnerability of young children, some regulation in this area may be a justifiable response.

Children's exposure to television advertising has risen in the last decade along with general rates of television viewing. It is now estimated that the average child spends three hours a day watching television.[221] Approximately one-quarter of children between two and five have a television in their room.[222] Television has even found its way into the schools through the presence of Channel One, a daily television broadcast that schools show to students in exchange for having free video equipment installed in their classrooms.[223] Of the twelve minutes of programming the children watch daily, ten minutes are dedicated to news and feature stories and two minutes are commercials, largely for soft drinks, sweets and other nutrient poor foods.[224] While some public schools have banned the presence of Channel One in their classrooms,[225] in 2000, eight million children watched the program daily.[226] By showing Channel One, many public schools

[218] Janice H. Kang, *Barbie Banished from the Small Screen: The Proposed European Ban on Children's Television Advertising*, 21 Nw. J. Int'l. L. & Bus. 543, 550 (2001).
[219] Campbell, *supra* note 217 at 322.
[220] Askari, *supra* note 211.
[221] American Academy of Pediatrics, *Children, Adolescents and Television: Policy Statement*, *at* http://www.aap.org/policy/re0043.html (February 2001).
[222] Schlosser, *supra* note 106 at 46.
[223] National Press Club, *Webcast Summary of Conversation with Christopher Whittle*, at http://www.npr.org/programs/npc/2000/000628.cwhittle.html (June 28, 2000).
[224] Campbell, *supra* note 217 at 318.
[225] *Id.* New York, for example, has banned all commercial or promotional activities in public schools, including Channel One.
[226] National Press Club, *supra* note 223.

now mandate television viewing rather than limiting it. Moreover, with the increasing number of television channels dedicated only to children's programming such as Nickelodeon, Cartoon Central and The Disney Channel, advertisers have an easier time targeting the specific market they are trying to reach.

2.

Feasibility of Advertising Restrictions

One suggestion to curb the effects of television advertising on child consumers is to limit their exposure to commercials. Advocates argue that children's advertising exposure should be limited both in schools by precluding companies from advertising through media or other channels, and in the home through broad-reaching regulation of television advertising directed at children. Specifically, the regulations could include a ban on all types of advertisements in school for foods defined as having minimum nutritional value. This would be consistent with other regulations regarding limitations on the sale of these types of foods during school hours discussed in greater detail above. Using the same definition of FMNV in this context would ease administration of these restrictions and would provide an already established definition of food advertisements subject to regulation. Concerns regarding scope and feasibility are present in this context as well, and the in-depth discussion of these factors provided above would also be applicable.

An additional proposal would entail expanding this regulation and applying it to regular commercial television. This would institute a ban on all fast food, snack food and soft drink advertisement directed at children that are broadcast during cartoons and other shows aimed specifically at children under the age of ten. Studies indicate that children over the age of ten have a greater demonstrated critical capacity to understand the purposes of advertising, mitigating the need for strict regulations targeted at this group.[227]

[227]Kang, *supra* note 218 at 550. In addition to the study referred to above, a second study indicated that after viewing a commercial, nine-year-olds abandoned their previous preferences and instead chose the advertised product.

Advertising directed at children has long been a controversial issue. In fact, in 1978, FTC initiated a rule-making proceeding to establish strict limits on advertising to children.[228] The proposed rule would have banned all advertising directed at or seen by children under the age of eight, banned advertising of sugar products to children between the ages of eight and eleven and required that any advertisements for sugar products be balanced with nutritional information broadcasts funded by these advertisers.[229] The specificity of these regulations indicates that a primary concern of regulators was the impact of advertising on the nutrition and health of children. These regulations were met with terrific hostility across the political spectrum. Their passage proved to be politically infeasible, and they were abandoned several years later.[230] Recognizing the general objections to these proposed regulations, Congress stepped in and rescinded the FTC's authority to pass industry wide regulations regarding these advertisements.[231]

Despite this failed effort, other restrictions do exist to protect children, who are arguably the most vulnerable consumer demographic. Generally, all advertising directed at children is subject to scrutiny under the fraud provision of the FTC Act that prohibits unfair or deceptive practices that affect interstate commerce.[232] Regulators occasionally use this provision to initiate enforcement actions against child advertisers.[233] Additionally, regulations interpreting the Children's Television Act of 1990[234] limited the amount of commercial time to 10.5 minutes per hour on weekends and 12 minutes on weekdays during programs targeted to children 12 and under.[235] Program length commercials directed at children were also banned, and broadcasters were

[228]Federal Trade Commission, *Children's Advertising, Proposed Trade Regulation Rulemaking and Public Hearing*, 43 FED. REG. 17,968 (1978).
[229]*Id.*
[230]Note, *The Elephant in the Room: Evolution, Behavioralism, and Counteradvertising in the Coming War Against Obesity*, 116 HARV. L. REV. 1161, 1172 (2003) [hereinafter *The Elephant in the Room*].
[231]Campbell, *supra* note 217 at 313.
[232]15 U.SC. 45 (1994).
[233]Campbell, *supra* note 217 at 313.
[234]Children's Television Act of 1990, 47 U.S.C. 303
[235]47 C.F.R. §73.670, note 2 (1992).

instructed to clearly separate the content of commercials from broadcast programming by placing a "bumper" indicating commercial breaks between TV shows and ads.[236] While limiting advertising to children to some degree, many argue that these regulations are inadequate to address the over-commercialism young children are exposed to daily. Rather, advocates of stricter regulation endorse following several European countries in instituting more direct limits on child advertising. Analyzing advertising regulation in the European context provides an indication of the possible effects a similar ban may have in the United States.

In 1989, the European Union issued a directive titled "Television without Frontiers" that placed substantive limits on the nature of advertising directed at children in order to prevent the exploitation of these young and vulnerable consumers.[237] Since then, several European nations have extended this concept and enacted even greater advertising regulations. Sweden and Norway have instituted the most extreme restrictions, and currently have a 24-hour ban on all advertising directed at children under 12 and forbid the broadcast of any commercials immediately before or after children's programs.[238] While these regulations may in part achieve some of the interests in reducing children's exposure to advertising, their success has been far from absolute. In Sweden, the effectiveness of the ban on advertising has been diluted to some extent by the efforts of advertisers to find ways around the regulation. For example, the regulations only prohibit advertisements directed immediately at children, allowing companies such as McDonald's to simply evade the restriction by advertising as a family restaurant and highlighting its unique features that appeal to children.[239]

Greece, which also has adopted a restrictive approach to child advertising, has noticed a significant decline in the amount of television programming directed to children since the enactment of these regulations.[240] By

[236]Campbell, *supra* note 217 at 315-6. These bumpers generally consist of the statement "we'll be right back after these commercial messages."
[237]Kang, *supra* note 218 at 544.
[238]*Id.* at 547.
[239]*Id.* at 549.
[240]*Id.* at 554.

limiting the profitably of targeting specific shows to children, broadcasters may realize it is in their economic interest to use airtime for shows that are able to attract greater advertising revenue, thereby decreasing age appropriate television for younger children. However, it is important to note that because these proposed regulations target only advertisements for foods of minimal nutritional value, these effects may be tempered because other advertisers would still be free to address their ads to children. While these regulations would likely have the undesirable effect of replacing food advertisements with those for other children's products, the severity of the child obesity epidemic may warrant treating these food advertisements as more harmful than those for other types of products.

Other possible negative effects of the advertising restrictions would be the invention of a more insidious form of advertising to children, including increasingly targeting children in schools through school sponsorship efforts referred to above. Additionally, with the increasing popularity of Internet use among children, it is likely that advertisers could target children in other media as well. However, as mentioned above, television remains the most effective method of reaching consumers, and it is unlikely that online advertising would be as effective, especially for younger children with less exposure to computers. Therefore, although Sweden's experience has proven less than wholly effective, it is possible that a more narrowly tailored regulatory scheme may reduce some of the negative outcomes discussed above while still effectively reducing the commercial power of large companies over the consumption choices of children.

3.

First Amendment Analysis

In addition to the general concerns addressed above, any attempt to restrict freedom of speech must be

analyzed for its compatibility with the protections of the First Amendment to the federal Constitution. It is commonly accepted that commercial speech can be permissibly more regulated than political or other types of speech.[241] However, since 1976, commercial speech, such as the type at issue here, has received some First Amendment protections.[242] This speech is protected in order to allow consumers to have access to information about the types and prices of goods on the market in order to allow them to make informed decisions about their consumption. Limiting the availability of this type of information to consumers is often criticized as paternalistic and is seen as reducing the ability of advertisers to supply truthful and helpful information to their target audience.

The contours of the protection for commercial speech are defined by the four-factor *Central Hudson* test that balances the interests of the advertiser, the government and the public.[243] Specifically, the test requires the court to determine (1) whether the expression is protected by the First Amendment, meaning it is lawful and non-misleading; (2) whether the asserted government interest is substantial; (3) whether the regulation directly advances the government interest asserted; and (4) whether the regulation is no more extensive than necessary to serve this interest.[244] Because of the subjective nature of this assessment, the Supreme Court has struggled to articulate a coherent policy around commercial speech regulation, although the recent trend has been toward granting greater protections for this type of speech.[245]

The most recent seminal decision in this area is *Lorillard Tobacco Co. v. Reilly*, a 2001 United States Supreme Court case.[246] This case addressed a set of Massachusetts regulations that banned the advertising of smokeless tobacco and cigars within a 1,000 foot radius of schools or playgrounds, and that regulated

[241] Valentine v. Chrestensen, 316 U.S. 52, 54 (1942) (holding that commercial speech did not merit full First Amendment protection).
[242] Virginia Bd. of Pharmacy v. Virginia Citizens Consumer Council, Inc., 425 U.S. 748 (1976).
[243] Central Hudson Gas & Electric Corp. v. Public Service Comm'n of N.Y., 447 U.S. 557 (1980).
[244] *Id.* at 566.
[245] *See* Posadas de Puerto Rico v. Tourism Council of Puerto Rico 478 U.S. 328 (1986) (upholding regulation of gambling establishment advertisements in the interest of maintaining the health and welfare of citizens); 44 Liquormart v. Rhode Island 517 U.S. 484 (1996) (striking down regulation forbidding liquor prices from being advertised as paternalistic).
[246] 533 U.S. 525 (2001).

indoor, point of sale advertising and placement of smokeless tobacco and cigar products.[247] In striking down the regulations relating to the advertisements proximity to schools and playgrounds, the Court found only that the third and fourth prong of the *Central Hudson* test were at issue. Justice O'Connor, writing for the majority, "acknowledged the theory that product advertising stimulates demand for products, while suppressed advertising may have the opposite effect,"[248] and found that in this particular case there was "evidence that preventing targeted campaigns and limiting youth exposure to advertising will decrease underage use of smokeless tobacco and cigars."[249]

However, the Court did not find the regulations sufficiently narrowly tailored and stated that the "range of communications restricted seems unduly broad."[250] The Court did indicate that if particular advertising and promotion practices appealing to youth were identified and specifically targeted, this regulation may survive the Court's scrutiny.[251] However, because these regulations reached so broadly, they impermissibly impinged on the "adult listener's opportunity to obtain information about products."[252] The Court went on to state that "so long as the sale and use of tobacco is lawful for adults, the tobacco industry has a protected interest in communicating information about its products and adult customers have an interest in receiving that information," [253] indicating the Court's hostility to reducing adult access to otherwise acceptable, truthful and legal information.[254]

This case offers some direction for advocates of restrictions on advertising to children. In analyzing a challenge to these restrictions, the Court would employ the *Central Hudson* four-prong analysis to determine if these regulations passed constitutional muster. Therefore, it is worthwhile to briefly address the possible

[247] *Id.* at 524-36.
[248] *Id.* at 557.
[249] *Id.* at 561.
[250] *Id.* at 563.
[251] *Id.*
[252] *Id.* at 565.
[253] *Id.* at 571.
[254] The Court had previously held that the government may not "reduce the adult population. . . to reading only what is fit for the children." Butler v. Michigan, 352 U.S. 380, 383 (1957).

arguments both for and against these regulations that are likely to arise. Under the first prong, the Court would need to determine whether the speech was protected under the First Amendment. Because it is unlikely that the Court would find these ads unlawful or inherently untruthful, it is likely that this type of commercial speech would be seen as warranting constitutional protection, and the *Central Hudson* test would apply.

Under the second prong, the Court would be required to analyze whether the government's interesting regulating these advertisements was substantial. This prong could be satisfied by pointing to evidence indicating the substantial health related issues that obesity presents. In light of the severity of the obesity epidemic among children, these regulations may be considered as meeting an important government interest in promoting the health of children. While the government interest in reducing childhood obesity may not be as readily recognizable as it is in the tobacco context where underage smoking is illegal, opponents may nevertheless concede this prong as they did in *Lorillard*.[255] In lieu of pressing this issue, opponents may reserve the weight of their arguments for the third and fourth prong, which would be arguably more difficult for advocates to meet.

To satisfy the third prong, regulation advocates would need to establish that these regulations directly advanced the government interest at stake. *Lorillard* would be partially controlling on this issue as the Court has already established the inherent power of advertising to influence the choices of children.[256] Advocates would need to argue for a simple extension of this principle and could offer empirical proof about the effects of advertising on children from the studies referred to above. Opponents would likely argue that the causal link between nutrient poor foods and obesity is too tenuous, and that the multifaceted nature of obesity precludes regulating only their products. Food producers may also argue that the scope of the regulation is too broad and that their products are unfairly included. This would place the Court in the

[255]Lorillard, *supra* note 246 at 555. The Court noted that petitioners did not contest the importance of the State's interest in preventing the use of tobacco products by youth.

[256]*Id.* at 557.

position of defending the definition of FMNV, although the discussion of this issue in Section III indicates that such a definition is possible to support.

Opponents may also argue under this prong that these regulations are not expedient because young children's consumption patterns are largely established by their parents, and children generally lack the means to make purchasing decisions themselves. However, advocates can argue that in light of research studies citing the ability of children to influence their parent's decisions about food, reducing the preference for these foods in young children may in turn decrease the proclivity of adults to purchase nutrient poor foods. Regardless of these arguments, advocates may face a difficult burden in showing that advertising restrictions would be an effective means of combating the incidence of childhood obesity given the myriad factors that are recognized as contributing to this epidemic.

To satisfy the fourth prong, advocates would need to establish that the proposed regulations were adequately tailored to infringe free speech no more than necessary. This may be easier to establish in the childhood obesity context than in *Lorillard* where the proposed regulations more directly affected the interests of adults. Because the proposed advertising regulations would be more narrowly tailored to only apply to television programs directed at children, these regulations may be adequately constricted. Opponents would argue that it is likely that older children and adults would also watch many of these same television shows, and that these advertisers should not be precluded from reaching this more mature audience. However, if the Court were to acknowledge the severity of the childhood obesity epidemic, they may see that some curtailment of adult exposure to these advertisements was acceptable, especially in light of the fact that these restrictions would only ban advertisements that were manifestly targeted toward children, leaving open the ability of advertisers to continue directly advertising their products to adult audiences.

In light of this analysis, it is possible that the Court would sustain the constitutionality of these restrictions. However, it is equally likely that the Court will continue in the general trend of providing greater protections

for commercial speech and further whittle away the historical distinction between commercial and other types of speech.[257] Therefore, it is far from certain that even if these regulations were successfully enacted that they would be able to satisfy constitutional scrutiny.

4.

Alternative Regulatory Proposals

In lieu of the more restrictive regulatory approach to addressing the effects of advertising on children's consumption patterns, there are several additional proposals to address this problem. The first option would be to support a series of educational campaigns targeted at parents and children that contain information about nutrition and the health effects of eating an unhealthy diet. However, because education campaigns regarding nutrition information have generally been regarded as somewhat ineffective,[258] a more forceful alternative may be advisable. One such recommendation is the active promotion of counteradvertising, a form of countermanipulation utilizing common marketing techniques employed by for-profit advertisers.[259] The difference between these efforts is that these counteradvertisements are designed to promote public health rather than produce greater profits for advertisers. These advertisements are more effective than simple educational campaigns because they work to manipulate preferences in the same manner as other types of advertisements. Therefore, these counteradvertisements could work against mainstream advertising to tip the balance of consumer preferences and encourage more healthy nutrition choices.

Because governmental funding for these efforts would be difficult to secure, food advertisers could be required to fund public service announcements (PSA) or counteradvertisements that would be broadcast during shows

[257] *The Elephant in the Room*, *supra* note 230 at 1180-81.
[258] *Id.* at 1182. Research indicates that there is still a significant disconnect between consumer knowledge about nutrition and the dietary messages of government agencies.
[259] *Id.* at 1181.

that run advertisements for their products. If in fact it is established that these products are a significant factor in the child obesity epidemic, this type of regulation may be justifiable. Because these regulations would expose children to information about healthier foods, they may offset the effect of advertisements for foods with more questionable health benefits. These PSA's would also increase the amount of information available to children and permit parents who are viewing these programs to make more informed consumption choices when shopping for their children. Because it is clear that advertising is an effective method of preference manipulation, this proposal should be explored further.

V.

Conclusion

Obesity is clearly a major public health problem deserving of immediate and extensive attention by government, private industry and individuals alike. This paper has laid out many suggestions for the implementation of a variety of programs that could effectively reduce the incidence of obesity in the United States. In conclusion, it is important to note that many of the suggestions made could be costly and may require a dramatic rethinking of the roles of public and private institutions in preventing the continuing growth of obesity. However, these recommendations are based on the notion that prevention is in the long run more effective and economically efficient than treating the health problems that will inevitably result from permitting this epidemic to continue unchecked. With obesity related health care costs reaching over one billion dollars a year, it is in society's interest to recognize this problem as a universal public health issue, not one of individual choice or responsibility.

Changing attitudes about obesity in order to garner broad based public support for the reform effort described above may be difficult. A recent survey to test people's attitudes about obesity related public policy efforts asked respondents to indicate their support for a variety of reform strategies.[260] The policies that were met with the greatest support were those that addressed youth obesity, including the elimination of junk food in schools and the regulation of advertising directed at children, which was the most popular of all the proposals.[261] The least popular proposal was taxing snack foods, which only 33 percent of the sample somewhat agreed would be a wise public policy objective.[262] Nearly two-thirds of respondents also indicated they would be willing to pay an additional $50 annually to improve the quality of school lunches.[263]

Although this study indicates that the public may not be prepared to fully support the reform efforts outlined in this paper, backing from key political leadership for these reforms may sway public perception in favor of supporting a concerted effort in this area. This support must be garnered across party lines to ensure a broad based understanding and appreciation for the severity of this problem and its effect on the economic health of the country. The public opinion study also indicated that education efforts to alert the general populous to the severity of this problem would be an effective means of gaining greater support for these proposals.[264] Therefore, an initial effort to gain support for further reforms would be to launch a broad based education campaign that highlights the fact that obesity is generally not an issue of individual failing, rather that it arises from complicated genetic and environmental factors that make its individual treatment difficult. Increasing public awareness of the public health crisis at hand would likely be successful in encouraging greater public support for reform efforts and may provide the necessary impetus to address this problem before it escalates further.

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[260] Oliver and Lee, *supra* note 10 at 8.

[261] *Id.* at 10-11. 57 percent of the sample supported regulations on junk food advertising to children. However, only 47 percent agreed with the policy recommendation to eliminate junk food in schools.

[262] *Id.*

[263] *Id.* at 11.

[264] *Id.* at 19.