

THE OBESITY EPIDEMIC: WHY AND HOW THE GOVERNMENT MUST ACT

By: Emily V

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Harvard Law School Class of 2

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ABSTRACT

This paper calls for the United States government – including, but not limited to, the Food and Drug Administration, Federal Trade Commission, and Health and Human Services – to take definitive and aggressive steps to combat the national obesity epidemic. After providing a history of how and why we now find ourselves in the midst of an obesity epidemic, highlighting the specifics of our current dilemma, the paper details the devastating causes and effects of overweight and obesity, not only on individuals but on the nation as a whole. This paper then outlines suggested solutions for how government and citizens, working together, can fight against obesity effectively.

INTRODUCTION

Nearly two-thirds of Americans, or about 127 million people, are currently overweight or obese.¹ Of this 127 million, 33 percent are clinically obese according to World Health Organization standards.² These are staggering numbers any way you look at them, but they are especially shocking considering that since 1994 – just 10 years ago – these numbers have risen by almost 10 percent.³ In other words, as the Centers for Disease Control and Prevention (“CDC”) has acknowledged, obesity now plagues the nation in epidemic proportions, and the problem only seems to be getting worse.⁴ If we want to reach the CDC’s goal of reducing the prevalence of adult obesity to less than 15% by 2010⁵, we have much work to do. To illustrate how daunting this task will be, consider the following statistics, compiled by Kelly D. Brownell and Katherine Battle in their book, Food Fight:

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- American spending on fast food has increased eighteen-fold since 1970.⁶

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- University of Minnesota researchers “found that the frequency of visits to fast-food restaurants by children was related to:

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- increased intake of soft drinks, cheeseburgers, French fries, pizza, total fat, and calories

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decreased intake of fruit, vegetables, and milk.”⁷

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At its peak, the National Cancer Institute had \$2 million to promote its 5 A Day fruit and vegetable program. Altoid mints have a \$10 million annual advertising budget. Coca-Cola and PepsiCo had a \$3 billion annual advertising budget (combined, in 2001).⁸

- Princeton University scientists have reported that lab rats “given a high-sugar diet and then withdrawn from sugar experience changes in both behavior and brain chemistry similar to those seen during withdrawal from morphine or nicotine.”⁹

- “American children may be the first generation in modern history to live shorter lives than their parents did.”¹⁰

- “One-fourth of all vegetables eaten in the United States are French fries.”¹¹

As these statistics suggest, fighting obesity will undoubtedly be an uphill battle. However, its prevalence and resulting devastation in the United States leave us no ethical choice but to combat it aggressively, and to start doing so immediately. Given the far-reaching nature of obesity and the health problems that go with it, combating them will be difficult, and will require a thorough understanding of why we are so fat, and what kinds of solutions may be most effective. Although there is still much to be learned about obesity and nutrition, this paper will attempt to describe how we have arrived at our current state of crisis, what obesity is doing to our health and our wallets, and how we might best go about slimming down and becoming healthy again.

⁹*Id.* at 34.

¹⁰*Id.* at 43.

¹¹KREBS-SMITH. *Progress in Improving Diet to Reduce Cancer Risk*, CANCER, 1998;83:1425-32. In *Id.* at 5.

DEFINITIONS

To understand many of the consequences of overweight and obesity, it is important to first understand what the terms “overweight” and “obesity” mean. Although some of us might moan that we are “overweight” when our favorite pants feel tight, or decry that someone walking down the street looks “obese,” this may or may not be the case; the terms “overweight” and “obese” have clinical definitions, to which this paper will stick. The National Institutes of Health define overweight and obesity by using a Body Mass Index (“BMI”) calculation, which is determined by dividing a person’s weight in kilograms by the square of his or her height in meters.¹² (For those of us who are mathematically and/or metrically challenged, we can use websites like the one at <http://nhlbisupport.com/bmi/bmicalc.htm> to do our calculations for us: just type in your height in feet and inches and your weight in pounds, and the site will compute your BMI.) An adult is clinically overweight if his BMI is between 25 and 29.9, and clinically obese if his BMI is over 30. Therefore, someone who stands 5’6” tall would be “overweight” if he weighed between 155 and 185 pounds (this would yield a BMI between 25 and 29.9) and “obese” if he weighed 186 pounds or more.

HISTORY AND THE STATUS QUO

Before delving in to causes behind and solutions to the obesity crisis, it is important to understand how we have come to predicament we now find ourselves in, just how bad the problem is, and what effects we are seeing from it. Only a few hundred years ago, our ancestors' entire existence revolved around trying to find enough food to provide the energy and nutrients they needed to survive, and to last them through droughts, winters, and famines. In other words, throughout most of humankind's existence, food was often difficult to come by, and pursuing it required a great deal of time and physical exertion.¹³ These few hundred years between the past – hunting, gathering, and perhaps farming to survive – and the present – simply driving to the nearest fast-food chain or supermarket to choose from a seemingly endless food supply – comprise only a drop in the evolutionary bucket. Evolution, which requires several generations to work its adaptive, survival-of-the-fittest magic, simply has not had a chance to catch up to our current food environment. After all, just a few hundred years ago, only those who ate as much as they could whenever they could were able to survive and, consequently, reproduce.¹⁴

Therefore, the 10-year-old girl profiled in the 2002 U.S. News & World Report article “A Fat Nation,” whose weight spun out of control from feasting on pizza, hot dogs, candy, ice cream, chips, and soda pop at every opportunity, was not suffering from lack of will-power or unusual cravings, as some of us might assume. Instead, “Katie was acting on a basic force of human biology: eat whenever food is available and eat as much of it as possible.”¹⁵ As Kelly Brownell, director of the Yale Center for Eating and Weight Disorders and co-author of Food Fight, quoted above, explains in the article, “humans are hard-wired to prefer rich diets, high in fat, sugar, and variety.”¹⁶ In fact, this tendency is so deeply engrained in us that even thin, young men studied at Pennsylvania State University tended to eat more when more food was immediately available to them: when presented with a 16-ounce serving of macaroni and cheese for lunch on one day, the men ate 10 ounces, when presented with a 25-ounce serving on another day, the men ate 15 ounces, or 50% more than what had satiated them just days before.¹⁷ Scientist Michael Tordoff saw similar tendencies in rats: although, when given separate amounts of protein and carbohydrate, the rats would usually eat a balanced diet, they tended to eat more carbohydrates and fats when more of these two things were provided to them. In fact, some ate carbohydrates and fats to the exclusion of the protein they needed to thrive.¹⁸ Perhaps this profoundly entrenched eating propensity explains why the most successful modification of U.S. consumption in our history was the food rationing program used during World War II: it was simply not possible to buy or, therefore, eat “too much” food.¹⁹

Some recent research hints not just at biological hard-wiring or predilection for energy-dense food, but at outright addiction to it, as a possible cause for our seemingly perpetual overeating. In Food Fight, Brownell and Horgen highlight Judith Rodin and Richard Wurtman’s studies at MIT, which suggest that people who cut carbohydrates from their diets can experience cravings like those experienced by people trying to quit smoking, drinking, or using drugs.²⁰ They also highlight studies performed by Hoebel, Colantuoni and other Princeton scientists which found, after depriving sugar-fed rats of their sugar source, that changes in the rats’ brain chemistries resembled those seen in humans who took highly addictive drugs like morphine. This physical addiction is entirely separate, of course, from the emotional addiction some people have to food; some people report eating to feel comforted, ease nerves, or combat boredom. Regardless, based on both physical studies and anecdotal reports about emotional eating, it seems highly possible that high-calorie food has addictive qualities. Mix addiction, an engrained tendency to eat high-energy food when it is available, and food’s omnipresence today, and we have one significant portion of a recipe for disaster.

In fact, copious amounts of food are now easily accessible almost anywhere in the United States. Food is available for purchase 24 hours a day in restaurants, vending machines, drive-thru’s, convenience stores, discount stores, drug stores, grocery stores,

Nor has our biological hard-wiring adapted to our relatively new sedentary lifestyle. While we were walking, hiking, and running to find and catch food several hundred years ago, walking to school and working our own land two hundred years ago, and sending our kids outside to play in the absence of TV and video games just a couple of generations ago, we are now sitting still more than ever before. We can hop in our cars to go to work – which is more likely to be an indoor desk job than an outdoor job requiring physical activity – and onto the bus to go to school, find entertainment at the touch of our remotes, find just about anything we want over the internet from the comfort of our own computers, use a variety of time-and-effort-saving home appliances to prepare our food and clean our homes more easily, and order junk food to be delivered to our car windows or even our front doors. As FDA Commissioner Mark B. McClellan emphasized in a recent speech, our sedentary jobs and lifestyles may contribute to healthier bottom lines by increasing our economic output and personal incomes, but they also mean that “we’re burning fewer calories, and getting rid of the resulting excess weight is not easy.”²⁸ In short, Americans do not have to burn nearly as many calories as we used to just to accomplish our necessary daily tasks. And, as many of us work longer hours than our parents and grandparents did, we have less time to exercise (or prepare fresh, healthier food for that matter) even if we wanted to. While we are moving less than our predecessors, we are eating more: in 2000, the average person ate 500 more calories per day than the average person ate in 1984.²⁹ Even the mathematically challenged can comprehend the general idea: eating more and moving less is bound to make Americans fatter.

Unfortunately, kids are no exception: like adults, they are more sedentary than ever before. They too have easy access to food that they don't have to work to find or prepare, are opting for TV, video games and computer games over outdoor playtime, and are often driven or bused to school rather than having to walk. This sedentary trend is exacerbated in our schools, where only eight percent of elementary schools and 5.8 percent of high schools offer Physical Education on a regular basis.³⁰ In fact, Illinois is the only state in the country that requires P.E. of all its students in grades K-12.³¹ One possible explanation for limiting or canceling P.E. classes could be schools' intensified focus on academics, which are more rigorous and time-consuming for today's students than perhaps ever before.³² This focus and the more demanding homework schedule that goes with it mean that "kids spend 48 percent of their waking hours in school and three hours a night on homework. . . . too much sitting. Homework is the number one reason parents and kids say they can't fit exercise into their day."³³ In short, kids, like adults, are spending too much time sitting still, and not enough time burning the excess calories they eat and consume throughout the day.

We are not only living in an environment of plentiful, cheap food and little physical activity: we are also living in an environment in which we are bombarded by food advertisements and messages every day. "Big Food" – the food and drink manufacturers and fast-food chains that have the most significant financial stakes in today's U.S. food market – have both the motivation and the resources to make sure that we not only choose their products over other foods, but that we continue to eat and drink these products as kids and, later, as adults. The food and drink markets are somewhat unique in that we need to use them everyday; every American needs to eat and drink. Thus, gaining loyal eaters and drinkers is obviously an extremely rewarding financial proposition. Specifically, Big Food makes a substantial amount of its profits on junk food – the sugary, fatty, salty foods we love to eat including candy, soft drinks, pastries, ice cream, cookies, nachos, pizza, hot dogs, and cheeseburgers. (NB: In contrast, the USDA's entire nutrition education budget is about the same size as the amount of money spent advertising just coffee, tea and cocoa.³⁵)

Big Food is everywhere as a result. In Food Fight, the authors emphasize this fact by providing a partial list of 68 popular food and drink brand names owned by just four major food companies: Kraft, General Mills, PepsiCo and ConAgra.³⁶ These companies, then, own serious stakes in our eating lives, and have become hugely wealthy from them. Naturally, because these foods, in addition to fast-foods, are such huge moneymakers, Big Food pays big bucks – around \$30 million – to advertise them each year.³⁷

This money targets adults and children alike. A 2002 Lancet study showed that U.S. kids see approximately 10 food advertisements per hour of TV they watch.³⁸ Some of these commercials showcase the toy gimmicks that Big Food hopes kids will find irresistible. In 1997, for example, McDonald's targeted 3- to 8-year-olds by advertising a free "Teenie Beanie Baby" with each Happy Meal purchased; presumably as a result, Happy Meal sales went from 10 million per week to 100 million per week in a 10-day period.³⁹ And even if kids are not allowed to watch TV or are unsuccessful at convincing their parents to take them to a fast-food chain for a "free" toy, they will likely still get their fill of Big Food advertising at school. Vending machines and soda machines, prevalent in many public schools, are emblazoned with brand logos. Schools sell advertising space to Big Food companies on their scoreboards, school buses, newspapers, yearbooks, and mouse pads, to name a few.⁴⁰ Many financially-strapped schools find the lucrative contracts offered by soft-drink companies to be too hard to resist: schools need only promise to sell X soft-drink brand exclusive to students and receive the money their various school programs so desperately need.⁴¹ In fact, in 2002, about half of U.S. public school districts had "pouring rights" contracts with soft-drink companies (in which soft drink companies pay schools for the right to sell their drinks in a particular school district) while still others had individual contracts.⁴² The result, which, of course, is precisely aligned with the soft drink companies' hopes, is that kids come to expect and crave their favorite sugary drinks as part of their daily routines.⁴³ During this same year, the USDA reported that between 56 percent and 85 percent of kids drank sodas every day.⁴⁴ Also as of 2002, 23 percent of American schools allowed not only soft-drink, but fast-food and candy companies to advertise to students by distributing coupons for free or discounted foods and drinks at school.⁴⁵ Kids, then, are just as overwhelmed, or perhaps even more overwhelmed, by the Big Food advertisements we adults see on the bus going to work, on every street corner, in our newspapers, on TV, and on our computers every day.

It is important to note that one segment of what I consider to be “Big Food” – fast-food restaurants – is particularly ubiquitous in today’s America. We are not only barraged with fast-food chain advertisements, but with fast-food itself. In most cities, and, indeed, even in many small towns, one can find a fast-food restaurant on just about every block. McDonald’s, for example, has 30,000 locations in 118 countries, and in 1996, opened a new restaurant every three hours.⁴⁶ And, according to McDonald’s, Ronald McDonald is recognized more than any figure in the world, except for Santa Claus.⁴⁷ As, or perhaps even more incredible, is that while about 30 years ago Americans spent around \$6 billion on fast food each year, they now spend more than \$110 billion on fast food in 2000, “more than on higher education, personal computers, or new cars.”⁴⁸ This translates into about one fourth of American adults going to fast-food restaurants each day, and into the average American eating three hamburgers and four orders of French fries a week.⁴⁹ Plus, fast-food chains are serving much larger portions than they did just 2 or 3 decades ago. Because it is so inexpensive to produce food now – especially for fast-food chains – which the cost of the actual food is “the least of the cost of a food product” as compared to packaging and marketing, fast-food chains are using “value” meals (read: larger food quantities) as a profitable marketing tactic.⁵⁰ Therefore, since it costs them little to provide bigger portions, fast-food chains can reap sizable financial rewards by convincing consumers that they are getting more food, and therefore more “bang,” for their buck.

Largely as a result of all of these factors, the majority of Americans are, in a word, fat. As noted above, 64.5% of American adults are overweight and, of this 64.5%, 30.5% are obese.⁵¹ In addition to the adult obesity problem, American children are getting fatter now than at any point in history, as one might guess from reading this far. The fact that the percentage of overweight 6- to 11-year-olds has doubled in the last 20 years, while the percentage of overweight adolescents has tripled, is illustrative of just how bad the problem has gotten, and is still getting.⁵² Unfortunately, being an overweight or obese child is likely to have ramifications on one's adult life, as heavy kids tend to become heavy adults. A study done by researchers at the University of North Carolina at Chapel Hill showed not only that 2 million American adolescents became obese between 1991 and 2001, but that another 1.5 million remained obese as they became adults. Of those studied, only 271,000 dropped to a healthy weight after leaving their teens behind.⁵³ Another study, this time performed by researchers at the CDC, revealed that overweight kids and adolescents are more likely to have high cholesterol, and are more likely to carry this heart disease risk-factor with them into adulthood.⁵⁴ In fact, one of the researchers noted that "it is apparent that conditions like heart disease, cancer, stroke and diabetes are the results of a long-term interaction between the human body and unfavorable social and environmental conditions, adverse biological patterns, and major biological risk factors."⁵⁵ Obviously, becoming overweight or obese early in life, and carrying the extra weight and accompanying risk factors into adulthood, put our bodies under too many years of stress. Thus, winning the nation's struggle with adolescent overweight and obesity appears to be critical not only for kids' health, but for their health as adults as well.

Overweight and obese adults' health tends, unsurprisingly, not to be very good compared to people with healthy weights. For example, as obesity climbed from 19.8% of American adults to 20.9% between 2000 and 2001, the amount of diagnosed cases of diabetes rose for all Americans – regardless of sex, age, race, or education - from 7.3% to 7.9%.⁵⁶ This is a significant jump, considering that it occurred over just one year. Between 1991 and 2003, a 12-year period, the number of obese Americans increased by 74%, and the number of diabetes cases rose by 61%.⁵⁷ In addition to diabetes, a Framingham Heart Study demonstrated that obesity doubles women's risk of heart failure, and that a man carrying 22 extra pounds has a 75% greater chance of heart attack than a person of healthy weight.⁵⁸ And, in December of 2003, the American Cancer Society ("ACS") released its findings in the largest study done thus far on the relationship between obesity and the risk of cancer. The study examined BMI and cancer deaths in 900,000 people over 16 years, and pointed to a "positive association between overweight and death "due to most cancers."⁵⁹ As, again, one might predict from reading this far, a 2003 study found that, particularly in young adults, "obesity appears to lessen life expectancy markedly."⁶⁰ Thus, if there was any doubt that obesity is not just a problem of vanity but a dire health crisis, that doubt should now be extinguished. Americans, b

“If we were to get a grade on our [FDA’s] own public policies and guidance on nutrition and health over the past decade, I’m not sure we’d want to take the report card home to mom. We’re certainly not doing well from the standpoint of results. We’ve seen steady and substantial increases in adult obesity in the United States since the late 1980’s. Today, almost two-thirds of all Americans are overweight. . . . If we don’t start making progress now to reverse these trends, our next generation may grow up less healthy to such an extent that it could threaten the steady and impressive population health gains that we have seen over the past century – gains that were in no small part due to healthier diets and better nutrition.”⁶²

Our eating habits and physical activity levels are simply not getting any better, despite the now-epidemic proportions of the obesity crisis in this country. For example, we are still eating out too often, or making poor choices when we do go out. Restaurant meals tend to contain more fat, cholesterol, and calories than home-made meals, and while Americans ate around 19% of their total calories in restaurants in 1977-78, they ate 34% of their total calories in restaurants in 1995.⁶³ Americans also tend to eat more, or “super size,” when we go out to eat, especially at fast-food restaurants that are advertising and encouraging the purchase of larger meals, again with more calories, fat, sugar, salt and/or cholesterol.⁶⁴ As Mr. McClellan admitted, we are an overweight nation that, if left unchecked, does not seem likely to get thinner any time soon.

If this indeed is true, and we do not get thinner any time soon, it seems we also will not be getting healthy any time soon either. Obesity in this country is nothing short of a public health emergency. To wrap one’s mind around the enormity of the problem, one might consider the following fact: “in the United States, obesity now contributes more to chronic disease and health care costs than does smoking.”⁶⁵ We can all remember the appalling health consequences exposed in the fight against “Big Tobacco,” and the public outcry that resulted. To think that the average American’s girth is even more of a burden on our health and health care system is truly astonishing. Countless pieces of literature – and, probably, our own and the experience with friends, family, acquaintances, or ourselves – confirm the omnipresent and severe effects of obesity. According to Brownell and Horgen, “research has shown links between obesity and more than thirty medical conditions, [including

osteoarthritis, rheumatoid arthritis, birth defects, breast cancer, cancer of the esophagus and gastric cardia, colorectal cancer, renal cell cancer, cardiovascular disease, carpal tunnel syndrome, chronic venous insufficiency, daytime sleepiness, deep vein thrombosis, diabetes (type 2), end state renal disease, gallbladder disease, gout, heart disorders, hypertension, impaired immune response, impaired respiratory function, infections following wounds, infertility, liver disease, low back pain, obstetric and gynecologic complications, pain, pancreatitis, sleep apnea, stroke, surgical complications, urinary strabismus, and urinary incontinence.⁶⁶

Heart disease proposes a particularly serious problem for Americans today. According to a 2003 *JAMA* publication, cardiovascular disease is currently the number one cause of death in America, and obesity is, of course, a key risk factor associated with cardiovascular disease.⁶⁷ This increased prevalence is starting to be seen in kids now, too: another 2003 *JAMA* article found that chances of getting atherosclerosis, which starts in childhood and can cause coronary heart disease by middle age, are most likely to increase with obesity and lack of physical activity.⁶⁸ Likewise, the incidence of diabetes – a disease for which obesity is also a key risk factor – is on the rise. In fact, according to *BusinessWeek*, “diabetes now affects 18 million adults in the U.S. – nearly twice the number 10 years ago – and costs the economy \$132 billion a year in lost productivity and medical bills.”⁶⁹ Tommy Thompson, Secretary of Health and Human Services, emphasized the obesity-disease link, and the state of our country’s health because of it, in a 2003 speech. In particular, he pointed out that, in addition to the millions of Americans with diabetes, “at least 16 million more have pre-diabetes,” that “poor nutrition, overweight, and inactivity cause at least a third of all cancers,” and that “obesity aggravates hypertension, which contributes to the number one cause of death in this country: heart disease.”⁷⁰ He went on to say that “every day, there’s new evidence about the harmful effects of obesity.”⁷¹ It is not surprising that, given obesity’s link to so many serious diseases, an obese nation will face elevated rates of these diseases.

And, obviously, higher death rates go hand-in-hand with higher rates of serious illnesses. Sadly, the obesity health crisis is no exception. A *New England Journal of Medicine* study, which followed 900,000 adults over 16 years, reports that “obesity significantly increases the mortality from all cancers and from individual cancer types at specific sites.”⁷² It also reports that the overall cancer death rates were 52% higher in morbidly obese men (those with a BMI above 40) and 62% higher in morbidly obese women, when compared with cancer death rates for healthy weight people.⁷³ Perhaps most chilling, researchers in this study estimated that “current patterns of overweight and obesity in the United States could account for 14% of all deaths from cancer in men and 20% of those in women.” Just under a year ago, the CDC attributed 30,000 deaths to obesity each year.⁷⁴ One of the *JAMA* studies noted above, which concluded that “obesity appears to less than offset the increase in life expectancy markedly, especially among younger adults,” noted that severe obesity could mean a 22% reduction in remaining life span in young men.⁷⁵ In a striking corollary, one researcher feared future inapplicability of a study finding that medical medicine and lifestyle changes have made American seniors healthier over recent decades: “the study’s findings may not be valid 20 years from now because of the epidemic of obesity, diabetes, and heart disease among middle-aged Americans.” It does not take much research, then, to realize that overweight and obesity have become so dire that we run the risk of reversing the heretofore steady trend of overall better health in America. In a “call to action,” the United States Surgeon General had made a similar macabre prediction in 2001, stating that “health problems resulting from overweight and obesity could reverse many of the health gains achieved in the U.S. in recent decades.”⁷⁷ Although there is much more to be learned about obesity, our government and healthcare professionals know one thing for sure: obesity is currently killing Americans every day, and without help, that pattern is only likely to continue.

This trend is also costing our country an incredible amount of money. In recent years, obesity-related health-care costs in the U.S. have been estimated at \$70 - \$99 billion per year.⁷⁸ One study estimated obesity-related medical costs to average 36% higher for 9.1% of America’s total medical expenditures for 1998.⁷⁹ And remember, because obesity and corresponding diseases have risen significantly since then, this percentage is probably higher now. To put this data into a more individualistic, even more concrete framework, consider the following: people who are overweight have in- and out-patient medical costs that average 36% higher, and medication costs that average 77% higher, than normal-weight individuals.⁸⁰ In 2003, these numbers translated to a 50-year-old, moderately obese man needing an extra \$1,000 for medical care each year, and a 50-year-old, severely obese man needing approximately \$4,000 more than a healthy-weight contemporary.⁸¹ And, even despite medical insurance, overweight and obese people are more likely to spend more from their own pockets on medical care than healthy-weight individuals. In 1998, overweight people paid an extra 11.4%, and obese people paid an extra 26.1%, on out-of-pocket medical expenses.

“Tubby Swiss Urged to Slim Down”

“French Polynesia Launches Campaign to Fight Obesity”

“Obesity in Canadians a Big Problem”

“Obesity Epidemic in New Zealand, Health Minister Says”

“Experts Chew the Fat Over Asian Obesity Guidelines”

“Viet Nam Faces Both Obesity and Malnutrition Problems”

“Survey Reveals Unhealthy Lifestyle” (United Arab Emirates)

“Tonga Obesity Rates 60%”

“Finns are Becoming Fatter”

“One in Four Malaysians is Overweight from Overeating”

“Bulgarians are Europe’s Most Overweight or Obese Citizens, Experts Say”

“China’s Little Emperors Still Getting Bigger”

”Fitness Crazy Czar for a Lazy Scotland”

“Obesity Epidemic in Belgium”

“Italy Moves to Tackle Obesity Epidemic”⁸⁴

Clearly, although America may be leading the charge, obesity has made its way into many corners of the world. As in America, the obesity problem in other countries tends to target both children and adults. For example, although the “prevalence of overweight varied appreciably across cities,” researchers have recently called for culture-specific weight loss programs to tackle the trend of adolescent obesity emerging throughout Latin America.⁸⁵ Similarly, although Japanese youths have tended to be slimmer than American children in the past, it appears that they have been getting heavier in recent years and are at an increasingly higher risk for heart disease, just like their American counterparts.⁸⁶ This is because increased body fat is linked to higher cholesterol levels, from which both American and Japanese kids now more regularly suffer⁸⁷. Obesity appears to be creeping into even non-first world, developing countries. Researchers report that “urbanization, rapid shifts in technology, and increasing availability of processed foods are altering the way people in many developing countries are living, and these changes are fueling the obesity epidemic.”⁸⁸ Especially astonishing is the fact that widespread obesity can be found even in countries in which *under*-nutrition is still a problem.⁸⁹ So, developing nations facing budgetary crises now have to worry not only about parts of their populations dying from starvation, but about the diseases associated with overeating that are affecting other parts, a particularly troublesome proposition.

Despite the degree to which obesity is affecting Americans, and despite the headlines regarding the now-global nature of the problem, Americans in general tend to still be relatively ignorant about obesity's causes, effects, and risk factors. Interestingly enough, our image-obsessed popular culture may actually work against, rather than to further, our education about obesity. It could be that people are so bombarded with diet books, gimmicks, and ads, workout programs, and constant images of impossibly thin (and, often, surgically-altered) TV stars and celebrities that they either become confused or stop paying attention to weight issues altogether. Even those who make concerted efforts to educate themselves about nutrition and weight loss may be confounded by all of the competing messages in our media: should we cut sugar? Carbohydrates? Certain *kinds* of fats? Should we take supplements? Ask our doctors for a weight-loss drug? It seems that, in the wake of abundant misinformation, and given the difficulty of sorting out correct information, Americans have lost their way. A poll conducted by the American Institute for Cancer Research, for example, discovered that most Americans do not know that calorie intake versus calorie expenditure is the key, basic component of weight loss: instead, 3 out of 4 Americans polled said that *what* they ate was more important to gaining or losing weight than *how much* they ate.⁹⁰ (This result is hardly surprising, given all of the fad diets publicized each day that urge people to eat only X, or cut out Y, but to eat as much of the approved foods as they wish.) In this same survey, 62% of those polled said that they thought restaurant portion sizes are either the same or *smaller* than those served 10 years ago, a guess that, as noted above, is entirely backwards. As the *U.S. News & World Report* reporters point out, "Americans' false hope that calories don't count may explain a good deal of the ignorance about how much people are actually eating."⁹² Perhaps most disturbingly, more than half of those polled in a Harvard University survey said that they were overweight, but 78% of these people did not think that this was a problem. Given this, it is not surprising that while most of the survey participants thought that cancer, AIDS, and heart disease were serious health problems, only one third thought that obesity is as well.⁹⁴ This, of course, is entirely wrong as well.

The American public also seems relatively ignorant about how complex both the causes of and solutions to the obesity epidemic actually are. In the same Harvard survey mentioned previously, two-thirds of those polled said that America's obesity problem is caused by "overweight people lacking the willpower to diet and exercise."⁹⁵ Likewise, a study conducted by the American Heart Association uncovered that less than a third of Americans are aware of the association between obesity and heart disease.⁹⁶ Rather, they tend to look at obesity "as a cosmetic problem rather than as a major source of illness and death." Mark McClellan highlighted the government's concern about the American public's apparent lack of knowledge regarding obesity in his remarks at Harvard's School of Public Health, noting that there is "some evidence that consumers are becoming better informed about dietary and other choices they can make to reduce their disease risks," and that, according to FDA surveys, "there has been a decline in the level of consumer awareness of some dietary risk factors" since 1990. Clearly, American citizens are a long way from being able to take the critical first step towards conquering obesity: awareness and understanding of accurate information. The tie between gaining accurate knowledge and taking affirmative steps to control one's weight might arguably be seen in one study that found that people with less than a high school education had a 27.4% higher rate of obesity and a 13% higher rate of diabetes than those who have completed high school.⁹⁹

Despite the host of problems caused by obesity (like illness, death, and crippling costs), and perhaps partly because of the obvious lack of helpful knowledge possessed by the public at large, American society continues to ignore the obesity crisis. In 2002, two *JAMA* articles written within one month of each other emphasized the increase in American obesity, the extent of the health crisis, and the immense importance for targeting the problem. The first article concluded that the prevalence of overweight and obesity was continuing to rise in 1999-2000, and that public health demanded the benefits available from weight loss.¹⁰⁰ The second article also stressed the need for a wide-scale public health response to the obesity crisis, explaining that physicians tended to under-diagnose and under-treat obesity and that obesity's huge burdens on society demanded more research and attention.¹⁰¹

Besides researchers' calls to action over the last several years, one can look to the popular press to see how little headway American society at large has made in obtaining accurate information about overweight and obesity. For example, a 1991 *Time* article detailed the same confusion about nutrition that we see in today's surveys: the article focused upon how difficult it was for consumers to know what is "healthy" and what is not based upon food labels and food ads, some touting "low cholesterol" and others touting "low fat," etc.¹⁰² Even then, thirteen years ago, the article quoted researchers urging that America's weight problems were from over-nutrition, "particularly overdosing on fat, cholesterol and overall calories."¹⁰³ When looking back to such literature, there is a noteworthy similarity between claims made 10 or 15 years ago and those made today about how Americans are consuming too many calories, and about how difficult it can be to navigate all of the conflicting food information in the marketplace, especially amidst a dearth of accurate information. Particularly, the "deceptive definitions, hazy health claims and slippery serving sizes" cited as problematic in the *Time* article continue to baffle consumers today. And, of course, consumers are still eating more energy than they can burn despite years of warnings.

The obvious question, then, is why does the government continue to take a relatively passive stance towards obesity? Why does society as a whole seem to be ignoring the obesity despite abundant warning signs? The answer is, undoubtedly, a complicated one. Part of the explanation may lie in people's bias towards, stigmatization of, and discrimination against overweight and obese people.¹⁰⁵ For whatever reason, many people, as seen in the above-mentioned survey, still continue to view overweight and obesity to reflect a moral failing, or lack of willpower, despite the actual multifaceted causes of obesity which we are still learning. As Brownell and Horgen point out:

"Any problem resulting from perceived misbehavior by a disrespected group is likely to be overlooked until escalating disease rates simply cannot be ignored. Parallels with AIDS are clear. Victims of that disease belonged to stigmatized groups. Many in society felt those with AIDS got what they deserved and deserved what they got, hence efforts at prevention began far later than necessary."¹⁰⁶

Thus, even though the obesity epidemic sweeping the nation can hardly be explained by one "group's" deviant behavior or lack of self-control, society may continue to view the problem this way.

In addition to the psychological reasons behind our failure to address obesity adequately, it could be that our society has become too reliant on scientific miracle breakthroughs. It is far easier to wait for a “magic bullet” pill or supplement or simply to switch to foods made with sugar- or fat-substitutes, or hope for a miracle procedure – like gastric bypass – for example – than to wade through confusing literature and make difficult lifestyle changes in the midst of our fast-paced, immediate gratification environment. Because of this, some feel that the research community has invested too much hope in finding a biological or chemical solution to overweight and obesity some time in the future, while failing to undertake preventative efforts that could start solving the problem *now*.¹⁰⁷ It is an understandable inclination, in a society that has found vaccines, antibiotics, and complex chemical and biological treatments for so many once-devastating diseases, to wait for the easy solution, but it seems the problem is so great now that we can no longer afford just to wait.

There are some forces, however, that are hell-bent on making us wait. A powerful one is, quite simply, the money tied up in Big Food. For example, though schools seem like an obvious place to focus preventative efforts, the education lobby, composed of school systems and superintendents, among others, has vigorously opposed attempts to remove junk foods and soft drinks from schools because these schools depend on their lucrative soda and junk food contracts for income.¹⁰⁸ Additionally, various food lobbies have pooled their resources and worked very hard to disclaim the idea that eating certain foods can increase one’s chances of obesity, even though common sense and experience seems to tell us that gravitating towards unsatiating, high-calorie, low-nutritional value foods would increase our chances of overeating and, therefore, becoming overweight or obese. For example, Brownell and Horgen assembled the following food lobby quotations:

“It is the position of the American Dietetic Association that all foods can fit into a healthful eating style.” – American Dietetic Association.

“All foods and beverages can fit into a healthy diet.” – National Soft Drink Association.

“Policies that declare foods ‘good’ or ‘bad’ are counterproductive.” – Grocery Manufacturers of America.

“No single food causes obesity or weight gain.” – Chocolate Manufacturers Association.

“No single food is to blame.” – National Confectioners Association.¹⁰⁹

Although all of these claims are perhaps technically true – drinking one soda or eating one snack-sized bag of chips isn’t going to make an otherwise healthy-weight person obese – the food lobby’s desire to be completely unregulated, if we cater to it, leaves us back at square one: with an unlimited marketplace of sugar-, fat-, and salt-laden foods that provide us with little benefit, nourishment, confusing labels, and way too many calories. The food industry is so afraid of regulation and restriction that it actually created the misleadingly-named “American Council for Fitness and Nutrition” to emphasize the import of exercise while deemphasizing its own role in our country’s expanding waistlines.¹¹⁰ This group – which is undoubtedly meant to sound probably does sound to most like a government-sponsored agency – urged that “decisions about the availability and selection of food choices in schools should be made by parents, educators, and local communities and should not be subjected to a ‘one-size-fits-all’ standard at the national level.”¹¹¹ When researching for this paper, I actually happened upon an article that began, “The American Council for Fitness and Nutrition (ACFN) has called for increased federal support for nutrition and physical education during Senate hearings on the school lunch and breakfast programs.”¹¹² As I started reading the article and noticed the emphasis on physical activity and vague “nutrition education” instead of regulation or restriction of certain foods, I remembered that this group was indeed comprised of the food lobbies rather than independent minds. The food lobby has tremendous financial stakes in being able to sell all the junk food it wants, and it has been tremendously clever and sneaky in attempting to promote its own goals, arguably at the expense of effectively addressing and preventing obesity.

America's continuing biases against minorities and the poor may also account for our inadequate response to the obesity emergency. These groups are being hit the hardest by obesity, and, as noted above, society can be slow to respond to problems it perceives as targeting only the marginalized. The Surgeon General's press release noted above states that "the prevalence of overweight and obesity has increased for both genders and across all races, ethnic and age groups, despite the fact that obesity does not exist."¹¹³ Particularly, studies done by University of Pennsylvania researcher Shiriki Kumanyika have shown that obesity prevalence is higher practically across the board in the various non-white racial groups studied when compared with white men and women.¹¹⁴ Particularly, in 2002, non-Hispanic black women faced the most acute obstacles, with over 50% of age 40 being obese and 80% being overweight.¹¹⁵ This statistic needs no emphasis – the numbers speak for themselves. Unfortunately, this trend can also be found in children and adolescents: the CDC has found obesity to be particularly concentrated among young African- and Mexican-Americans.¹¹⁶

Research has shown a poverty link to overweight and obesity as well: of almost 10,000 people studied, those on Medicaid had the highest obesity rates.¹¹⁷ In fact, the Surgeon General has reported that poorer women have a 50% greater chance of becoming obese than their higher-income counterparts.¹¹⁸ In one article exploring the recent epidemic rise in type 2 diabetes in the Mississippi Delta area – one of the fattest areas of the nation, according to the CDC – one doctor posits that poverty, which is significant in the Delta area, could be a contributing factor to the epidemic. He particularly notes that, although the overall objective should still be to eat less, it is important to be aware that low-fat and lower-calorie foods, like lean meat and fish, are often more expensive than their unhealthy counterparts.¹¹⁹ None of these studies and observations linking poverty to obesity are particularly surprising when one considers that today's fat-, sugar-, salt-, and calorie-laden fast-foods, junk foods, and snack foods are some of the cheapest food options to come by. This is no accident: Big Food works hard to provide these foods cheaply to a broad socioeconomic market. Also, besides lacking the money to buy previously prepared healthier options at upscale restaurants and take-out venues, poor people may also lack the time to buy healthier ingredients to prepare at home. While wealthier people often have household assistance or a stay-at-home spouse in the family to buy and prepare healthy meals, many poorer people, who may work long hours to make ends meet and have to address children's and household chores upon their return home, simply cannot spend the time shopping for and preparing for healthy meals. Especially considering that there is most likely a McDonald's or similar fast-food outlet around the corner where one can often buy fast, easy, tasty, ready-to-eat meals for less than the cost of the fresh chicken breasts and vegetables on display at the supermarket.

Clearly, we in the United States have a serious public health crisis on our hands, and much work to do to try to combat it. Given the incredible prevalence of overweight and obesity, and the tremendous toll it is taking on our nation's health, the limited nature of the federal government's response at the moment seems woefully inadequate, and perhaps even irresponsible. However, the government is taking some steps to address the problem. One of the steps that has garnered extensive media attention as of late is the FTC's "Red Flag" campaign, which attempts to help media outlets voluntarily screen and block out bogus weight-loss advertisements.¹²⁰ Likewise, the FDA recently included "crack[ing] down on false products and false claims," especially those related to potentially harmful dietary supplements, and "help[ing] consumers improve their health through better information and greater 'health literacy'" in a white paper listing some of the agency's goals for 2004. Hopefully, these campaigns will make a dent in the misinformation problem, but it remains to be seen how effective they will be, or even how specifically they will be employed.

Also in an effort to arm consumers with reliable nutrition information, the FDA, in the same document referred to immediately

SOME KNOWN CAUSES OF OBESITY THAT DEMAND ATTENTION

Before we can develop effective solutions, it is important to get a firm grasp on the known causes of and contributors to obesity.

Many of these factors become self-evident when one considers the current status quo. For example, as mentioned above, Americans are eating more food than ever before because there is more of it available for less money than ever before.¹²⁶ This trend is particularly evident in our penchant for fast food: it's cheap, the portions are huge, and we're eating it in record numbers, making it a multibillion dollar business.¹²⁷ Thus, we are consuming record numbers of calories, in fast food restaurants, sit-down restaurants, and straight from our freezers at home. But, instead of compensating for these extra calories by doing more physical exercise, our desk-bound, technologically-supported, time-pressed lifestyles require us to move less than ever before. Even kids, who through most of civilization have burned plenty of calories through unorganized physical play, outdoor chores, and later sports and other organized activities, are failing to move enough to burn the extra calories they consume. Again, this can be attributed to many changes in the American lifestyle, including reduced physical education programs in schools, and increased television, computer, and video game use.¹²⁸

Perhaps, even despite the highly caloric, food-friendly environment in which we live, our situation would be less dire if Americans had the information needed to make smart food and exercise choices. Astoundingly, however, even in the face of a visually obvious crisis, most Americans are still unaware that we are eating too much and moving too little.¹²⁹ There is also still a tendency among Americans to relegate obesity to the private sphere: because of naiveté and stigma, and despite the obvious growth of overweight and obesity throughout our society's ranks, we continue to see weight as an issue of personal "willpower" or "restraint," even though this approach is clearly failing us.¹³⁰ In fact, some evidence suggests that our collective nutritional IQ has actually decreased in recent years – that we know less about overweight and disease than we used to.¹³¹ Even doctors are dropping the ball by failing to adequately recognize and treat overweight and obesity.¹³² Thus, part of the obesity crisis is an informational one: even from our doctors we are not getting essential information about how to maintain a healthy weight, nor about why it is so critical to do so.

This informational problem is only exacerbated by the conflicting, confusing, and often misleading information we *do* get. To begin, one could make a full-time job out of trying to decipher and then measure the actual intended serving size of a product. I would face quite a challenge at most vending machines, for example, if I were committed to only drinking one serving of a soft-drink. After feeding my dollar and change into the slot, I might well face a 20-ounce bottle that tells me on its label that it contains two-and-a-half servings. Unless I happened to have a measuring device with me, which is obviously extremely unlikely, and am willing to close up the bottle and carry the remains around with me the rest of the day and then drinking my serving, only to throw it out later because it had gone flat, I am probably going to absent-mindedly drink the entire 20-ounce bottle. As touched upon above, this is exactly what Big Food is hoping for: to convince us that we are getting extra "value," or perhaps to trick us, from a quick look at the calories and a skip over the servings-per-bottle notation, that we are consuming less than we think.¹³³ Big Food clearly, then, has a financial incentive to keep us from comprehending that consuming these large quantities are overloading us with calories. Indicative of this is the sugar lobby's successful blocking of an initiative to require food labels to include the amount of added sugars in products.¹³⁴

But even aside from Big Food, from fast-food chains, or from food labels at the grocery store, consumers are being bombarded with conflicting dietary information in our news media. NBC's "Nightly News" with Tom Brokaw recently aired segments on nutrition each night, from February 16 – February 20, 2004, detailing, among other things, the nation's recent low-carbohydrate craze. Reporters showcased opposing thoughts on whether or not to eat bread, or whether the secret was in portion sizes, and whether Dr. Atkins became obese and riddled with heart disease from following his own popular diet. While some of the information seemed helpful, some of it was confusing: in the end, should one forego bread or not? Is

For those of us who live in low-income areas and want to control our “hording” instinct by having only healthful or lower-calorie foods in our refrigerators and pantries, we might find another difficult challenge: healthy, fresh foods are harder to find in low-income areas, and also tend to be more expensive than junk food. It is hardly surprising that overweight and obesity are especially prevalent in low-income areas given that fast-food restaurants and convenience stores abound, offering cheap and plentiful options, while supermarkets carrying healthier, more nutritious options are harder to find and more expensive to boot.¹³⁸ Taking the largely overweight Mississippi Delta area again as an example, fried, fatty, sugary foods abound while other healthier foods are more difficult to afford.¹³⁹ This is not a demand problem, either: studies show that when low-income populations gain better access to healthy foods, their health tends to improve.¹⁴⁰ Thus, the demand for healthy options like fruits, vegetables, and un-fried, lean meats – is there, but unfortunately, the supply is not.

Another tremendously important cause of obesity and overweight lies in Big Food's massively successful marketing campaigns aimed at American kids. We might know this instinctively: I remember begging my parents for a certain junk cereal, even though I had no idea what it tasted like or what it was made of, because my favorite cartoon character promised me great taste and a free toy inside the box in an advertisement broadcast during one of my favorite TV programs. But those reading this passage are, like me, probably too old to appreciate how intensely advertisers have begun to focus on children in recent years. In fact, marketing efforts aimed at kids have doubled just in the last 12 years.¹⁴¹ This boils down to the average American watching 10,000 food commercials on TV each year, or one food commercial per five minutes of Saturday morning cartoons. Unsurprisingly, "the vast majority [of these advertisements] are for sugared cereals, fast foods, soft-drinks, sugary and salty snacks, and candy; few promote foods children should eat more frequently such as fruits and vegetables."¹⁴³ Furthermore, junk food advertisements are not only all over the TV, they are just about everywhere else, including in our schools. Kids see soda advertisements – not to mention bottles of soda and other sugary drinks and snacks available for purchase – on vending machines at school, at school sporting events, as pop-ups on kid-friendly websites, etc. These campaigns are particularly designed to establish brand loyalty early on – in other words, to ingratiate certain products into children's daily diets in hopes that they will carry these preferences or, arguably, addictions, into adulthood.¹⁴⁴ But, they are also aimed at getting a piece of kids' spending money, which is not an inconsiderable amount: kids between ages five and fourteen spend \$20 billion every year.¹⁴⁵ Apparently, allowances and Grandma's Christmas checks really add up to an amount worthy of advertisers' considerable efforts.

Also as anyone who has been a kid knows, there is a second part to this story. When, after my parents refused, I asked my grandparents to buy me a box of the junk cereal I so desperately wanted. When they complied, I soon discovered that the junk cereal tasted like candy – in other words, pretty good. Again, human beings, like the rats in the studies noted earlier, are predisposed to enjoying sugary foods. My grandmother, thrilled to get me to eat anything at all, was happy to surprise me with a second bowl when I asked for one. From then on, every time I slept over at my grandparents (which, luckily for my health generally and my teeth in particular) was only a few times a year, I got to pick out a box of sugar cereal from the grocery store to have for breakfast the next morning. I do not offer this story to show that sugar cereals are the root of all evil, but rather to demonstrate how clever ~~ad~~²⁸ campaigns can induce resourceful kids to ask for, and often get, sugary non-nutritious foods, and to take a strong liking to their gimmicks and tastes early in life. And, my anecdote is not the most convincing evidence we have that Big Food's advertisements are working; they must be working if companies continue to be willing to spend \$30 billion a year on them.¹⁴⁶ And why else would 70 percent of kids studied between ages six and ei

As the power of and budget behind food advertisements suggest, the food lobby is both ubiquitous and formidable. Recall, for example, that one of the reasons it is so hard for schools to go ahead and get rid of junk food and soda is the money they receive from Big Food.¹⁵¹ And, the food lobbies are very clever at insisting that no one food is to blame for the obesity crisis, but rather, that other factors – particularly a lack of physical activity – are to blame. Even FDA seems to have bought this argument; according to Commissioner McClellan, “as FDA has long emphasized, diet-related health problems are primarily a matter of unhealthy diets, not inherently healthy or unhealthy foods.”¹⁵² The American Dietetic Association also touts a similar line.¹⁵³ Again, while it may be true on some level that no one food causes obesity, sticking to this principle certainly seems misleading and unhelpful for the most part. While a person with a biological predisposition to being thin will not become overweight if she exercises regularly, eats a diet consisting almost totally of healthful foods and a non-excessive amount of calories, and indulges in a banana split or a bag of chips once a month, most people’s bodies cannot tolerate the *regular* consumption of high-calorie foods, especially in the portions we see now, and especially given our society’s decreased activity level. Thus, insisting that all foods have a place in a healthy diet hardly helps people to navigate the confusing labels and portion sizes of all of the highly caloric, nutritionally-devoid food on the shelves, nor does it help them to choose lower-calorie or more nutritious foods. Some people feel that the size, money, and marketing skills behind food lobbies are part of the reason the government has failed to step up to the plate to adequately address the obesity epidemic.¹⁵⁴

These are just some of the likely causes of overweight and obesity in our country. Many of them should compel us to action simply as a matter of common sense, even if Big Food and its lobbyists may try to confuse us. It is important for us to continue to research the different, often complicated components of the obesity crisis so that we may address it most intelligently and effectively.

FINDING SOLUTIONS: POTENTIAL STARTING POINTS

Given that we cannot speed evolution so that our bodies are better able to deal with our current environment, that a “magic pill” cure obesity seems unlikely, and that extra weight can be extremely difficult to lose once it is gained, the best public health approach to the obesity crisis lies in *prevention*.

All of the research done thus far, as well as common sense, tells us that we must focus a large portion of our preventative efforts on children. First, obesity tends to start when we are young, and then hang on as we grow into adults. According to Perre D. Gordon-Larsen at the University of North Carolina-Chapel Hill, study results show that “obese teens remain obese in adulthood.”¹⁵⁵ As noted above, this study showed that, of 2 million American adolescents, 1.5 million remained obese as adults.¹⁵⁶ Likewise, obesity-related diseases can start while we are young and then stay with us as we grow into adulthood. Atherosclerosis, the heart condition that can cause heart disease and stroke, is now present in overweight children; recall from above that, because “conditions like heart disease, cancer, stroke, and diabetes are results of a long-term interaction between the human body and unfavorable social and environmental conditions, adverse behavioral patterns, and major biological risk factors,” it makes sense to try to forestall their development for as long as possible.¹⁵⁷ And, as we all know, many important habits begin to develop when we are young. Thus, there is great potential to influence children’s life-long health by encouraging healthy habits from the get-go. For example, promoting a healthy diet full of fruits and vegetables, as well as an active lifestyle that includes regular exercise, can help stave off overweight and heart disease.¹⁵⁸ Although this evidence is convincing enough, a look back to the recent tobacco wars in this country highlights the importance of prevention. Instead of resorting to the courts when we are already sick and dying, as many smokers eventually did, we should opt to save our lives now rather than litigate later. Besides being too little too late – financial restitution is obviously an inadequate replacement for life – litigation seems an ineffective strategy in the “war” against Big Food thus far.¹⁵⁹ Because kids simply do not possess the skills to navigate our ever more daunting, complicated, manipulative food environment, nor to appreciate the adverse effects bad early choices can have on their later health, we owe it to them to help them learn how to be healthy for life.

The first step in this process is refusing to fall for Big Food's assertion that there are no inherently unhealthy foods. We must
past this and assign value to foods: we know that certain foods, like vegetables, fruits, and whole grains, are simply better
for us than are junk foods. Certain foods contribute more to our bodies, via fiber, vitamins, minerals, and antioxidants
name a few, than do others. Given the current obesity crisis, few would likely disagree that "the nation should consume
bacon and more broccoli, fewer hot dogs and more whole grains, less ice cream and more fruit. This does not imply that
person should never touch bacon, hot dogs, or ice cream, but rather that changing the balance of some foods relative to others
is a means for improving America's health."¹⁶⁰ We need to embrace this message, rather than the vague and misleading
contention that all foods are alright and, by implication, created equal.

Second, we need to take this idea a step further to get rid of junk foods and sodas in schools. Replacing these with healthy
options will not only have an immediately positive effect on children's health, but will help them to develop the healthy food
habits they can enjoy throughout their lives. As one *JAMA* article notes, "because many of the lifestyle and behavior choices
associated with obesity develop during school-age years, a child's food intake and physical activity at school are important
determinants of body weight."¹⁶¹ And, as we now know, healthy-weight children have a better chance of remaining healthy
weight adults than those who are overweight or obese in childhood or adolescence.

Although food companies will obviously oppose such efforts vigorously, given the financial incentive to get children's spending
money and to plant the seeds for continuing brand loyalty, public health and basic morality require that we put children's
interests, rather than Big Food's, first. In 2003, while the United Fresh Fruit & Vegetable Association lobbied Congress for
a bigger share of the government's school lunch program, the milk industry lobbied to get them to drink more milk. This
prompted soy processors to advocate offering soy substitutes for cow milk. Then, the butter lobby joined in, asking that
more butter included in school lunches, and wheat processors suggested a "special project" encouraging kids to eat more
bread. In sum, "all want a piece of the school lunch budget."¹⁶² Given the health consequences of the contents of
schools, it is ludicrous to leave children's health interests behind in order to accommodate lobbying interests. Protecting
children's wellbeing as a first priority is consistent with American morality: we vaccinate them, require them to go to school
and provide them with health insurance when their parents cannot. To be consistent with this ideal, we need to protect them
from an out-of-control food environment, starting³¹ in our schools.¹⁶³

To bolster opposition to Big Food and put the requisite pressure on schools to drop junk foods and soda, we need to get information about the obesity crisis, in particular the connection between poor childhood health and poor adult health, to parents and teachers. If parents and teachers grasped the long-term impact that junk food and soft drinks can have on children, and the import of establishing good eating habits early in life, I have no doubt that a large portion of them would demand that the junk foods be banned from schools. Banning junk foods would make room for healthier foods in schools, and would also put the onus on food companies who wanted to sell in schools to make healthy choices available for reasonable prices. The incentive to put the food industry's considerable scientific and financial muscle behind developing affordable, healthy foods so that they could sell to schools again would be huge; such competition could spur the market to vastly improve our food choices. Too, this could have far-reaching health benefits for the population at large.

To work, the ban on junk foods in schools must be complete. It is simply not enough to provide healthy school lunches, while offering high-sugar, -fat, -salt, and -calorie snacks and sodas in vending machines. School vending machines, of course, are more likely to include snack foods, desserts, candy, and soda than healthy options.¹⁶⁴ And, these predominantly unhealthy foods are displacing healthier options from the main menu: “the primarily high-fat snacks and calorie-dense beverages offered and sold to students via a la carte programs are displacing fruits and vegetables in the diets of young teens and contributing to total and saturated fat intakes that exceed recommended levels.”¹⁶⁵ Again, anybody who has been a kid can guess that kids will spend their lunch money on what they think tastes best, and the foods that they think taste best are usually not the healthiest ones.¹⁶⁶ It is encouraging that replacing unhealthy options with healthier choices seems to work well in getting children to eat better. One high school in Maine took all junk food out of their vending machines and instead replaced them with healthier snacks. The high school's principal observed that “kids are hungry, and they will eat what you offer them. And the vending machines empty just as fast as when they had candy and chips.”¹⁶⁷

One particularly formidable opponent to removing soda from schools will, obviously, be the soft-drink companies. However, it is essential that we remove these drinks, because “the rationale is similar to that for foods discussed [above]...if high-sugar drinks are available, children will choose them...Children do not need soft drinks. There are healthy alternatives like milk and bottled water.”¹⁶⁸Regular sodas are highly caloric, full of sugar and, often, caffeine, so getting in the soft-drink habit can mean getting in the habit of consuming too many calories for no nutritional benefit. Again, if we expose soft-drink companies’ financial stakes in schools, the tactics they take to hook kids on their products, and the ill effects of drinking too much soda, perhaps parents and educators will develop the determination they will need to resist the soda lobbies and their cash.

If necessary, it would be worthwhile – from both financial and public health standpoints – to subsidize schools to compensate losses from soda and junk food sales. Given the staggering costs that obesity puts on our healthcare system and our economy and the strong links between childhood overweight, obesity, and obesity-related disease later in life, spending relatively little now to save big later is a compelling idea. And again, if we put stricter junk-food bans in place in schools, the likelihood that food companies would compete to make affordable, healthy alternatives that they would be able to sell to schools seems encouraging.

Another positive aspect of taking tempting, unhealthy foods and drinks out of schools is that children will be more likely to actually spend their lunch money on government-regulated school lunches instead. The close correlation between vending machine and school lunch revenues in Texas support this idea. When Texas Agriculture Commissioner Susan Combs looked into the school lunch program in her state in 2003, survey results showed that vending machine contracts produced around \$54 million for Texas Schools, while school food services lost around \$60 million in potential sales because children were choosing “colas and snacks over cafeteria meals.”¹⁶⁹ Thus, removing junk food options could give a significant financial boost to the school lunch program, the extra proceeds from which we could then use to improve the healthfulness and quality of the lunches.

Some communities have already caught on to the potential benefits of eliminating junk foods and sodas from schools. In a 2003 survey of 500 teachers and 600 parents with at least one child in public school, 92% of the teachers and 91% of the parents said they believed school vending machines should sell healthy snacks and drinks instead of junk foods and sodas. And, in the last few months, legislators have started to respond. In addition to the actions taken by Ms. Combs in Texas, both the state of California and New York City recently passed bans on unhealthy junk foods in school vending machines. Again, education is key: if we educate parents, teachers, and other consumer and community activists about the dangers of keeping our school foods as they are, and about the great potential benefits of replacing unhealthy foods and drinks with more nutritious options, demand for change would rise, and legislators would have little choice but to respond.

Next, we must ban all food advertisements directed at children. This is, quite simply, the right thing to do, because children do not possess the requisite tools to view advertisements critically or make smart food choices in spite of them. We struggle to protect children from other sources of manipulation;³⁴ it should be no different with food choice manipulation given the potentially hazardous health consequences. As Walter Willett, a Harvard University Nutrition researcher, so eloquently put it:

“The commercial exploitation of children... is particularly egregious. Recognizing that children are not fully mature with regard to making informed decisions, we control the promotion of alcohol, firearms, and tobacco. Yet we assume that young children can rationally decide about food choices that have important health consequences, and we expose them to intense marketing of products that are largely devoid of nutritional value but replete with calories.”¹⁷²

As discussed earlier, food companies target children partly to develop “brand loyalty” early in life.¹⁷³ This means that food advertisers are partly fighting to induce kids to *habitually* consume – or, in a sense, become addicted to – their products. It is not appropriate for a responsible society to allow advertisers with this purpose to have access to children. Because kids cannot discern accurate from inaccurate information, gimmicks from nutrition, or sugar from fiber, attempting to induce them to make completely uninformed food choices is both manipulative and extremely harmful. It is most likely for these reasons that former FTC chairman Mike Pertschuk attempted to promulgate his “Kid-Vid” project, a rule that would regulate advertisements aimed at children. Unfortunately, due to adverse political circumstances at the time, the initiative never got off the ground.¹⁷⁴ However, the fact that such initiative was thought necessary by many people 30 years ago – when the obesity epidemic was only a shadow of what it is now – is telling. We should pick up where he left off by banning all food advertising directed at children. A good start would be not allowing food companies to associate cartoon, or other clearly kid-aimed characters, with their foods, by banning food advertisements during children’s programming, and by keeping food advertisements out of schools. This solution is not only necessary but practicable: other countries, like Greece, Belgium, Norway, Sweden, and Canada (though only in Quebec), have all managed to put children’s advertising blocks in place.¹⁷⁵ Next, while we get kids *out* of the habit of making uninformed, unhealthy food choices, we need to get kids *into* the habit of enjoying regular physical exercise. This is an initiative that can be taken by towns, families, and after-school groups, but we must emphasize the necessity of exercise by requiring active physical education programs in all schools for all children from kindergarten through twelfth grade. Recall from above that physical education is all but extinct in our schools today. Only Illinois requires gym for all kids in grades K through 12, and only about one fourth of American teenagers participate in any form of physical education.¹⁷⁶ Even those schools that have gym classes are not getting the job done: according to one study, “in an average gym class, a child is aerobically active for only 3.5 minutes.”¹⁷⁷ Thus, we need not only to require physical education classes, but to mandate a certain level and duration of physical activity per class. With small adjustments, providing kids with a variety of fun physical activities, and perhaps a few extra minutes to wash up after gym class, kids could get in the habit of exercising each day. Some may even find that they are athletically inclined from their physical education classes and go on to play a sport for years to come.

While friends of mine made this discovery, I made a different but equally valuable one. Though I was never athletically inclined, I developed a long-term exercise habit as a result of a P.E. class. In 12th grade, a friend and I opted to sign up for a “powerweightlifting” class to fulfill our P.E. requirement. Although I had to start slowly, I learned how weightlifting is important for maintaining bone mass, for keeping my metabolism up, and for keeping my muscles strong. And, the instructor advised me on the importance of balancing weightlifting with cardiovascular exercise. When I went to college the next year, I continued to lift and incorporated cardio into my routine, which I still do to this day. The value of active P.E. classes, then, lies not only in immediate physical benefits, but in their habit-forming potential.

In addition to providing meaningful physical education, schools need to include some form of nutrition education in their curricula.

Included in P.E., wellness, or science courses, even basic nutrition information could help kids negotiate their food environments more healthfully. A basic education about calories, portion sizes, sugar, fat, and vitamin and mineral requirements could help young people to better navigate their food environments. Such education should not be alarmist or one-sided, especially given the prevalence of eating disorders in young women; we should be cognizant that scaring kids into not eating *enough* is a risk we must carefully work around. Instead, education should stick to basic information about what our bodies need each day, what foods we should focus on, and how we can use food to maximize our health.

The government should support this effort by mounting a public awareness campaign for both adults and children; through public service announcements employing some of the clever advertising techniques that Big Food companies use, for example, the government could help make sure that healthy food information sticks in our heads. If FDA, HHS or CDC used favorite cartoon characters to “advertise” healthy foods and healthful eating, for example, kids might be apt to pay closer attention to nutrition wisdom. One extremely compelling reason for giving this a try is its probability of success: “one study found that children who watch public service announcements focusing on nutrition choose more vegetables, fruits, and other nutritious foods.”¹⁷⁸ Likewise, research has shown that kids can be taught how to distinguish accurate information from persuasive advertisements.¹⁷⁹ Educating kids to make better food choices can make not only for healthier kids, but for long-term health and, therefore, healthier adults. Perhaps if public service announcements use pop culture to help reach adults, we might be able to help people maintain their good habits and remember the importance of good nutrition even as they face the varied demands of adult life.

Educating the public about nutrition, and about how to cope with Big Food advertisements and make good, independent food choices in spite of them, has obvious health potential. Likewise, informing people about just how severe, painful, and expensive the obesity crisis has become is necessary in order to motivate people to eat well and exercise. However, increasing public awareness about nutrition may also help bolster Americans’ health in other, less direct ways. For instance, educating the public about Big Food’s often manipulative advertising strategies – and their deleterious effect on kids’ health – might put the pressure on toy companies, animators, and children’s television producers not to lend their product names and faces to Big Food advertisers. Just as Disney refused to associate its cartoon characters with cigarettes even before more stringent tobacco regulation took effect, most likely because of possible public outrage and corresponding damage to Disney’s reputation, perhaps education would make companies think twice before lending famous names and faces to junk food advertising.¹⁸⁰ Likewise, raising public consciousness about the obesity crisis, and about food advertising’s contribution

Another benefit of carefully determined, modest food taxes would be increased, more publicly beneficial competition among food companies. Perhaps a monetary incentive to avoid food taxes would motivate Big Food to channel its considerable resources into making healthier convenience foods. Because Big Food employs some of the best food scientists, it is worth our while to spur them to put their efforts and creativity into making healthier food more readily available to the public. This could help make good food choices easier for the public to make, and also could help remedy our society's tendency to have overwhelming access to cheap, unhealthy foods while having limited access to more expensive, healthy foods. Big Food makes too much money from cheaply-produced junk food to want to change its products. This is why consumers must demand healthier products from Big Food, and why the government must force financial incentives for change upon food companies.

Though food taxes continue to be a controversial topic, opposition to them has begun to ease off as more people become more aware of the severity of our nation's health problems.¹⁸⁵ Although food taxes may not be ideal in that they could have some negative consequences – for example, disproportionately affecting the poor or becoming too arbitrary¹⁸⁶ - with careful planning and past experience, we can effectively address these potential hazards. Furthermore, obesity has become such a huge public health emergency that it simply demands a swift, meaningful reaction. The government has initiated more drastic measures in its response to other public health crises, and has employed taxes to protect us against tobacco-related diseases. Obesity is killing so many of us so quickly that it too deserves a definitive, serious governmental response. Food taxes may help jumpstart public awareness, healthier food choices, healthy food innovations, and the accrual of much-needed nutritional education dollars. Therefore, modest, well-conceived food taxes could be a sensible part of a governmental attack on overweight and obesity.

Another prudent step in our public health response should be governmental regulation of serving sizes. This is not to say that the government should regulate how much we eat. Rather, the government should set rules to help prevent people from being misled about how much they are eating or drinking. Recall the 20 ounce soft-drink bottle: a 20 ounce soft-drink bottle has 171 more calories than the 6 $\frac{1}{2}$ ounce bottle from years ago, and although the nutrition label tells me there are 55 calories per serving and that there are 2.5 servings per bottle, I would argue that most people are likely to consume the entire bottle, and all 250 calories, in one sitting.¹⁸⁷ I would also argue that soft-drink companies know and intend this given the marketing advantage (discussed above) inherent in providing more product inexpensively and calling it a “value.” Therefore, the FDA should sit down with its own experts, and perhaps with other food scientists, to decide which foods and drinks have gotten out of hand size-wise and what amounts would constitute sensible servings. The government should then enforce these serving sizes in response to the obesity crisis, requiring soft-drinks to come only in 8- or 12-ounce sizes, for example. That way, when people do make unwise food choices, at least they will be less likely to unknowingly guzzle more than 10% of their daily calories in a couple of swigs.

Serving size regulation should also be imposed upon fast-food restaurants. Common sense tells us that a fast-food-inhabiting nation will likely gain weight fast-food chains sell gigantic, ever-increasing, “super-size” portions. Basically, we cannot expect to conquer obesity while allowing the restaurants⁴⁰ that serve the most of us to grill up dinner-plate sized hamburgers for only a couple of dollars. This is probably so, remember, because our biological make-up leads us to eat more when there is more in front of us.¹⁸⁸ Serving size regulation can be done in a way that would still leave us feeling full; it would just prevent us from unthinkingly eating much more than we should, and perhaps from that familiar, overstuffed feeling we often have

Another key, heretofore underutilized resource for encouraging people to stay active, and educating them about the immense health benefits of doing so, lies in our medical professionals. Doctors need to be more proactive in asking their patients what kinds of exercise they do and helping them to devise exercise strategies. Exercise is an essential ingredient in helping people actually maintain weight loss and therefore must be emphasized as part of a healthy lifestyle.¹⁹⁶ And, many studies have indicated that at-risk individuals require a “continuous care” approach to obesity treatment: doctors must not only help patients devise plans to lose weight, but help them to understand how to maintain a healthy lifestyle over the long-term; plans should include exercise.¹⁹⁷ The import and success of doctor involvement in major lifestyle changes can be seen in the fight against tobacco: “smoking cessation counseling by physicians has been found to be one of the most clinically effective and cost-effective of all disease interventions.”¹⁹⁸ People tend to respect what their doctors tell them, and to maintain continuing relationships with them. Therefore, doctors are in a unique position not only to educate patients of health risks associated with overweight and obesity, but to help them construct a weight-loss approach and, perhaps most importantly, to work with patients one-on-one to develop a “long-term strategy that is tailored to an individual’s lifestyle and needs.”¹⁹⁹ Doctors who can help people through long-term lifestyle changes and maintenance are invaluable allies to patients fighting to regain their health.

The workplace is another major obstacle to physical activity that must be confronted in a comprehensive obesity attack plan.

As highlighted above, American adults are spending more hours working in sedentary jobs than ever before. Unless we think of creative ways to allow adults to fit exercise into their busy work schedules, it is unlikely that we can change our inactive ways. First, the government should aim some of its public awareness efforts at employers: if employers realized how much time and money they lose due to complications from overweight and obesity, they might be inspired to enable and encourage employees to exercise during the day. For example, the Xerox Corporation found that those employees who participated in the company's "wellness plan" filed fewer workers' compensation claims and had lower on-site injury costs.²⁰⁰ Public education would not only encourage employers to institute wellness programs, but would also let employees know that they can and should demand more health considerations from their employers. Second, the government could boost work exercise programs by giving tax incentives to companies that create healthier environments. For example, companies that build exercise facilities – or that simply lead daily walks or runs – and give employees the scheduling flexibility to take advantage of them could look forward to a healthier bottom line in more ways than one. A third possibility is for the government simply to mandate exercise time and facilities at all companies over a certain size. Larger law firms, for example, could be required to allow attorneys to count up to five hours of exercise each week as billable time. Large factories could be required to provide exercise facilities on the premises and allow workers to clock up to five work hours a week at the facility. This way, the government would not have to pay tax benefits if it was short on health funds, but could shift the financial burden to companies that could not only afford to pay, but that would reap the corresponding financial benefits from healthier employees.

In addition to cutting down on bad foods and increasing exercise, we also have to find ways to make healthy foods accessible and affordable to the population at large. Recall that, especially in poorer areas, healthy food can be hard to come by and more expensive than highly caloric, but non-nutritious, alternatives. Also recall that, not coincidentally, overweight and obesity tend to be particularly rampant in poor neighborhoods.²⁰¹ One promising solution would be to subsidize supermarkets that agreed to open in poor neighborhoods. "Supermarkets are more likely than small stores to have healthy foods at cheap prices,"²⁰² and one study done at the University of North Carolina found a connection between the presence of at least one supermarket in a neighborhood and an increase in the number of people who reduced the amount of fat in their diets. Perhaps once supermarkets establish themselves⁴² in new neighborhoods they will become profitable without government assistance, especially as people begin to learn of the health advantages to be gained from healthier eating, and as competition within Big Food to produce inexpensive, healthier alternatives increases. Although a little more difficult, we might also require, or at least put pressure on, Big Food companies to help finance health food initiatives in poor neighborhoods.

Although it has been emphasized before, it bears repeating that the government absolutely must help to *educate* the public about calories, portions, and food choices. People are so bombarded with conflicting information that, even if they realize they should lose weight, they do not know how. Therefore, the government’s message must start simply – perhaps just focus on calories for now, for example – and be presented in simple, easily understandable pieces. Because it seems that the government, given the devastating status quo, might finally be willing to ditch Big Food’s “no food is to blame” tag line, it should be clear about which foods should comprise the bulk of our diets.²¹¹ While the government has started to implement nutrition initiatives, like Health & Human Services’ “Five-A-Day” and “Nine-A-Day” fruits and vegetable programs,²¹² and is currently working to update its Dietary Guidelines for Americans,²¹³ these efforts have clearly been woefully insufficient given the continuing rise of obesity in America.²¹⁴ The government simply cannot be content just to post nutrition information on its web pages; it must take a far more active approach, clear up nutrition confusion, and start from scratch with far more intense public health campaigns of which the public is clearly deserving.

I predict that the beneficial effects of adequate public obesity education will be huge. Besides the obvious effects of being aware of the importance of maintaining a healthy weight, and of being armed with the right information at the grocery store and the dinner table so that we can make healthier food choices, there are other indirect effects to look forward to. For example, if people are made aware of how serious the effects of overweight can be, those who can might be willing to reprioritize to spend more time, or even a little bit more money, for healthy food. And, people might be more apt to redirect the billions that are currently spending on weight-loss gimmicks into healthy food, gym memberships, running gear, or aerobics classes. As noted above, if people have better information, consumers may put more pressure on Big Food, parents more pressure on schools, and activists more pressure on insurance companies to do right by them: we can speak with our votes, letters, protests, and pocketbooks when we dine out or peruse supermarket wares. When coordinated with appropriate changes to the environment, knowledge will undoubtedly go a long way towards whittling our country down to size.

Some people will read this paper and feel that the importance of free personal choice should trump regulation of nutrition and activity interests in this country.²¹⁵ I can sympathize with this argument to some extent: as a health-weight individual, I might feel that I should be able to indulge my craving for a bag of Doritos twice a year. However, I could certainly live without Doritos, and the societal costs of allowing Big Food to have free reign over our diets far outweigh whatever momentary satisfaction I might take from my nacho cheese fetish. And, regulation does not equal eradication: cookies, chips, candy, and soda will always be available, hopefully to be enjoyed less frequently and in smaller portions, but available nonetheless. If I have to pay a bit more for my bag of Doritos, or have to go to the store to buy a bag rather than to my school's vending machine, so be it. Likewise, McDonald's fans could certainly cope with having to buy one normal serving of food at a time instead of ordering a gigantic "extra value" meal. At the heart of this issue is a basic decision: complete personal choice versus public health. In America, we make this principled decision often, restricting personal choice for our own good when a situation warrants it: consider mandatory seatbelt and bike helmet laws, for instance.²¹⁶ It is also important to remember that those truly concerned with our health are not making free choice food arguments. Rather, the food industry is; we must recognize and expose this fact.²¹⁷ Simply put, we cannot let the personal choice argument obscure reality: the obesity epidemic has gotten so out of control, is costing so much money, and killing so many of us that it would be utterly irresponsible to take decisive, regulatory action to get this country's health back on track.

CONCLUSION

It is important to remember that, even in the face of staggering statistics regarding overweight, obesity, and their effects on our nation, there is some significant cause for optimism as we take our first decisive steps in our battle. First, and perhaps most importantly, this could be the perfect moment in which to act. The numbers – of pounds, of people suffering or dying from obesity, of dollars lost – have gotten so out of control that both the government and the population will probably be more receptive to act more aggressively. This is especially true because the Baby Boomers, a powerful, sizable generation, are getting older and suffering from bigger waistlines; they will undoubtedly put some of their political and economic heft behind anti-obesity measures. As one newspaper article put it, “driven in part by the obesity crisis and the economic power of millions of Baby Boomers searching for healthier diets, consumers are hungrier than ever for everything from organic potato chips to healthier food in school lunchrooms.”²¹⁸ In other words, the demand for significant programs that will tackle overweight and obesity is most certainly there.

Also, we now have very encouraging evidence that consumers with strong enough convictions can achieve great change in both business and government. McDonald’s voluntary agreement to eliminate some of its “super-size” products is an excellent example: presumably, even though the super-size products have been a great financial success for the corporation, McDonald’s realized that, to stay in consumers’ good graces and maintain their business, they would have to show consumers that they were making more health-conscious efforts. The 2001 organic foods law is a result of successful consumer activism as well: the first draft of the standards promulgated by the United States Department of Agriculture (“USDA”) allowed the use of some genetically modified ingredients, but the USDA was forced to remove the questionable portions of the standards as a result of consumer protest.²¹⁹ Money talks, and consumers who want both big businesses and the government to pay attention to America’s failing health should remember the tremendous power they can yield with a little bit of organized action. Furthermore, even though the government clearly has a long way to go to better educate the American population about nutrition and about obesity’s risks, our undeniably increasing girths are beginning to gain more attention in popular culture and in popular media. For example, NBC’s Nightly News program aired its “Nutrition Nation Week” segments during the week of February 16 – 20, 2004, focusing on how Americans are trying to tackle extra inches, how they’re fairing, and different opinions about different diets. The next week, on February 24, 2004, Good Morning America aired a piece about how menu items on kids’ menus in restaurants are often overloaded with fat and calories, how parents can help kids to improve their nutrition habits, how parents can tell if their kids are just temporarily “chubby” or actually overweight, and how adults are being affected by obesity too.²²⁰ Similarly, the cover of the January 19, 2004 issue of Newsweek had “Diet & Health: What You Really Need to Know” as its cover story.²²¹ So again, the national concern and interest is certainly there