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Using Public Policy as a Tool to Combat Obesity in the United States

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Table of Contents:

Chapter 1: *Introduction*

Obesity is rapidly rising in the United States as the most prevalent chronic disorder of the 21st century. Over the past three decades, the number of obese individuals has more than doubled, and the staggering statistics tell us that over 2/3 of American adults are currently overweight or obese (CDC, 2014). The American Medical Association has recently categorized obesity as an official disease, highlighting it as a serious condition that is killing people. Researchers warn that if we fail to reverse our nation's obesity epidemic, the current generation of young people may be the first in American history to die younger than their parents.

If we wish to take action to reduce obesity, we must target its real underlying causes. The conventional wisdom is that obesity is the expression of personal weakness and lack of self-control; the idea that individuals lack the will-power to say no to foods that they know are bad for them. However, a "lack of self-control" does not explain the massive increase in rates of obesity. While individuals have choices about what they eat or how active they are, these decisions are affected by factors that are beyond individual control. Instead, we must acknowledge that the current obesity "epidemic" is a product of a completely transformed modern food environment, which constantly puts cheap high-calorie, low-nutrition food in our faces everywhere we go. Today, the food environment assaults us at every turn in ways we cannot ignore, stimulating us to feel hungry and making our default food options the least healthiest. From the displays of candy at cash registers, to the always-present supersized combo meals that make us feel we are getting a bargain, it's difficult to resist the purchase of these foods (Cohen, 2013, 18). Although

it is easy to cast the blame away onto individuals, the reality is that food choices are often automatic and made without full conscious awareness, and the "easy" options are almost always unhealthy.

Thus, obesity is no longer simply a stigmatized condition, but a true modern day public health crisis, which left unchecked, could have disastrous effects on the health of future generations. We must consider it a pressing public health issue that should be remedied by resolving the structural issues underlying our current food environment. One of the responsibilities of the United States Department of Health is to protect the health of U.S. citizens. Good health is not merely the result of good medical care, but the result of what we do as a society to create the conditions in which people can be healthy (Institute of Medicine, 2011). Public policy can be one of the most effective approaches to protecting and improving the health of the population, and its success can be seen in countless public health interventions, from alcohol and tobacco regulations, to sanitary and food safety reforms.

For this reason, utilizing public policy interventions would be an effective way to make an impact on rising rates of obesity. The best way to tackle this problem is by creating a more balanced environment in which individuals can automatically make healthy decisions about when, what, and how much to eat. The quickest and most efficient way to do that is through new public health regulations. Since the current food environment is the largest determinant of rising rates of obesity, policy interventions that target these environmental factors must be the basis of its remedy. Reducing obesity requires solutions that transcend individual behavior, and instead focus on the underlying socio-environmental factors that are making us one of the most obese nations in the

world. The real solution to obesity will not come from diet books telling people what they can and cannot eat, or blaming those who are obese; it will come from creating a food environment that is conducive to better health, by making unhealthy foods a little less accessible, and a little less attractive. Enacting legislative change is no easy feat, but even small-scale interventions at a local level can add up to have a large impact nationwide.

In this thesis, I will first give some background information on obesity to give a general idea of what it is, how it has developed, and what its significance is in American society at this time. I will then examine the modern food environment to help us better understand what factors in our society influence what and how much we eat. Next, I will use initiatives in New York City as a case study to analyze different health policy interventions that have been implemented or attempted there, and what factors have made these policies successes or failures. Finally, I will conclude by proposing a few regulatory interventions that I feel would be successful in helping to reduce obesity, based on their targets toward improving the food environment that we all live in and making it easier for consumers to make healthy choices.

Chapter 2: *Background Information*

At its most basic, obesity is an excess of body fat. The World Health Organization (WHO) defines obesity as having "abnormal or excessive fat accumulation that presents a risk to health" (Guthman, 26, 2011). The CDC classifies adult obesity using body mass index (BMI), which is calculated as weight in kilograms divided by height in meters squared. Adults with a BMI of 30 or over are considered obese (CDC, 2014).

Obesity increases the risk for a host of serious medical problems. In fact, according to one recent study, poor diet and physical inactivity may soon overtake tobacco as the leading cause of death in America (Finkelstein, 2010, 21). Being overweight or obese is a strong risk factor for type 2 diabetes, heart disease, hypertension, joint and back pain, certain types of cancers, and a multitude of other medical problems (Mayo Clinic, 2014). The likelihood of developing these conditions increases with rising weight.

Weight gain occurs according to the standard laws of metabolism: when you take in more calories than you burn through exercise and normal daily activities, you gain weight. The body stores these excess calories as fat, and over time, this overconsumption of calories every day builds up to cause a significant weight gain that may result in obesity. Not only how much you eat, but also what kind of foods you are eating are also important determinants of weight gain. We tend to eat a fairly consistent amount of food no matter how many calories we need, so an overconsumption of foods that are high in fat, sugar, and salt can significantly contribute to weight gain. That is why many Americans, whose diets are largely based around fast food, highly processed food, high-calorie beverages, and oversized portions are now finding themselves obese.

The obesity epidemic is a nationwide issue that is affecting Americans in every demographic and every corner of the country. In 2010, no state met the Healthy People 2010 target of reaching an obesity prevalence of 15%, and the state with the lowest obesity prevalence was Colorado, with 21% (CDC, 2012). Substantial differences exist in obesity prevalence among racial and ethnic groups, sex, and age groups, but prevalence

rates have increased markedly across all socio-economic classes (Truong and Sturm, 2005).

The issue of obesity has shifted from an individual problem to a public health crisis because of its high costs to the public. While once people may have argued that obese individuals are "only hurting themselves," it is now clear that the rising levels of obesity affect everyone in this country, regardless of their weight. Annual healthcare costs related to obesity are nearly $200 billion. This accounts for approximately 21% of our country's total healthcare costs, and statistics tell us that last year alone, the medical costs for people who were obese were $1,429 higher than those of normal weight (Yale Rudd Center, 2014).

Taxes continue to rise to cover these growing costs, and already they are putting a financial strain on the Medicare and Medicaid programs. If obesity rates continue to grow at their current rate, costs will become too large for these federal healthcare systems to cover, and taxes will continue to rise to support these programs. Eric Finkelstein, author of The Fattening of America, explains that because Medicare will cover most obese individuals inevitably, and because the Medicaid population has a 50% higher prevalence of obesity, the government finances roughly half of the total medical costs attributable to obesity. As a result, the average taxpayer spends approximately $175 per year to finance obesity-related expenditures among Medicare and Medicaid recipients" (Finkelstein and Zuckerman, 2008, 94). In looking at these statistics, it is apparent that the general public ends up paying for a large portion of the increased costs of obesity.

Studies show that obesity leads to lower worker productivity and increased absenteeism from work. Researchers have found that excessive weight and physical

inactivity negatively impact the quantity and quality of work performed, and overall job performance. In addition, as a person's BMI increases, so do the number of sick days, medical claims and health care costs (Trust for America's Health, 2009). All of these facts mean that companies are losing money and paying more in health insurance costs for their employees. This affects non-obese employees by forcing them to pay higher premiums for their health insurance, to cover the costs of their obese co-workers.

Overall, individuals who are obese are causing the United States healthcare system to fall victim to what is called the "tragedy of the commons." This economic theory is understood as a negative externality that occurs when individuals exploit a shared resource to the extent that demand overwhelms supply, and the resource becomes unavailable or more expensive to the rest of the population (Hardin, 1968). Those individuals who are obese are using an excess of the country's healthcare resources and money, stemming from varying medical needs such as more prescription drugs for heart conditions, diabetes, and high blood pressure, surgeries for the replacement of knees, hips and other joints, or bariatric surgeries to help them lose weight. These preventable medical needs cause obese individuals to use more than their fair share of our limited healthcare resources, and place a burden on our country's shared healthcare system. The rest of the population not only suffers from the unavailability of the resources that are used up, but also ends up paying more in health insurance costs for these lesser resources.

Therefore, obesity has transitioned from an individual problem to a public health concern that needs to be addressed. We are all paying for it through increased taxes and are affected by its strain on our healthcare resources and dollars. As a nation, if we made combating obesity a national priority, we could have a tremendous payoff in improving

health and reducing health care costs by up to 61% (Finkelstein and Zuckerman, 2008, 98). For this reason, greater emphasis is needed on developing strategies, policies, and programs to help make it easier for more Americans to improve the quality and limit the quantity of what they eat.

The best way to make a significant impact on the obesity epidemic is to prevent it in the first place. When someone has been obese for a sustained period of time, more drastic measures may be needed for them to lose weight, and about 80 to 95 percent of obese individuals who lose weight eventually regain it (Rettner, 2015). Most restrictive diets result in only short-term weight loss, and physical activity is not enough to reverse obesity unless it is combined with some kind of dietary intervention. Therefore, the most effective strategy to halt this problem is to intervene before individuals become obese. Successful policy proposals to reduce the incidence of obesity will be those that aim to prevent obesity in the first place. The strategies I propose to modify the current food environment will likely have the biggest impact on those who are overweight, but not yet obese.

Chapter 3: *The Modern Food Environment*

Many experts agree that the obesity epidemic is the product of "a completely transformed food environment" (Cohen, 2013, 7). Our food environment includes all food related elements of our surroundings, such as grocery stores, restaurants, prices, portion sizes, availability, marketing and advertising. Deborah Cohen describes in her book, A Big Fat Crisis, that in the short period of time from the 1970's, during which

obesity rates have doubled, several important changes in the food environment have taken place: food has become increasingly accessible and convenient; the overall price of food has declined, especially for high-calorie foods that are filled with fat and sugar; the food industry has continuously come out with new products and larger portion sizes; and food advertising and marketing has become more pervasive and effective, increasing the cues that tell us to eat. All of these factors contribute to a food environment that promotes eating more and makes it easy for us to do so.

These changes did not happen by accident, nor were they developed to purposely make people fat. They came about because they are very effective in increasing corporate profits. Marion Nestle blames the food industry for these changes, asserting in her book Food Politics that, "many of the nutritional problems of Americans- not least of them obesity- can be traced to the food industry's imperative to encourage people to eat more in order to generate sales and increase income in a highly competitive marketplace" (Nestle, 2002, 4). As stated before, the increased calories in American diets come from eating more food in general, but especially more of foods high in fat, sugar and salt. It can hardly be a coincidence that these are the foods that are most profitable to the food industry and that it most vigorously promotes (Nestle, 2002, 52).

The reason why the current food environment has such a profound impact on the eating behavior and subsequent weight gain in humans has a base in evolutionary biology and can be explained by "mismatch theory." The essence of mismatch theory is that humans possess traits that have been passed down through generations and preserved because of their adaptive function in a given environment. However, the environment of the evolutionary period in which these traits evolved to be adaptive is vastly different

from that in which humans currently live, and therefore certain traits are now "mismatched" to our modern environment (Power, 2009, 14). This can be exemplified in humans' proclivities to eat, which were shaped long ago when food was scarce and hard to obtain. For this reason, we evolved as a species that prefers high energy density foods, especially those that are high in fat and sugar. In the past, it required substantial effort and exertion to acquire such foods, and our cravings for these foods that in the past motivated us to seek them out were adaptive (Power, 2009, 39). However, in the current food environment, people have an abundance of opportunities to consume cheap calories consisting of sugary and fatty foods, and the convenience with which we can acquire these foods is unmatched in history. While physical exertion was once linked to food acquisition, we can now have pizza delivered directly to our front door. This mismatch makes us highly susceptible to the current food environment and the way that it urges us to eat more. For this reason, a significant contributor to the current epidemic of obesity is the interaction of our current food environment with past adaptions that are now inappropriate. Mismatch theory substantiates the argument that if we wish to make an impact on levels of obesity in the United States, we must focus our efforts on improving the current food environment.

The first problem with our current food environment is the way that it puts cheap, high-calorie, low-nutrient foods at our disposal in a way that is unprecedented in human history. Humans are highly responsive to even subtle environmental cues, so these large shifts in access and pricing have major effects on eating behaviors (Brownell et. al., 2009). Cohen expresses the view that, "the problem is less about access to healthy food

than it is about being inundated with too much unhealthy food." She paints a picture of a typical grocery store with a description of Kroger's Food 4 Less:

> "Although it has a substantial section of reasonably priced fresh fruits and vegetables, much of the store is filled with aisles of junk food. Right at the entrance, one must run a gauntlet of cases of juices, Chips Ahoy cookies, Coca-Cola, Sprite, Sunkist, and 7-up stacked high on either side of the aisle, and guess what? They are always on sale. Fifty count snack packs of thick and heavy tortillas; a special floor display of Hostess Zingers at two for $5 dead center in the middle of the pathway" (Cohen, 2013, 80).

Not only does this increase in food availability constantly shove snack foods into our faces at every corner of the grocery store, but it also makes overeating affordable to most of us. Even though we are spending less of our overall budget on food, we are consuming more calories.

With the expansion of 24-hour fast food joints and reasonably priced restaurants, we are also eating more of our meals away from the home. An increasingly large percentage of America's food budget is going toward restaurant or take-out food that requires little to no preparation. Low prices, large portion sizes, and convenience make these meals out a cheap and easy alternative that quickly becomes a way of life. This higher incidence of eating out is problematic because it is difficult to control portion size and understand the nutritional value of what you are eating.

In addition to the overall availability of food, the presence of food advertising has become inescapable in the last few decades. As food prices have decreased and food supply has become overly abundant, competition has driven food companies to devote extraordinary resources to developing and marketing products that will sell, regardless of their effect on consumer's health. In fact, the vast majority of marketed products we see

on a daily basis are for products with poor nutritional quality. A 2009 study on the marketing of breakfast cereals reported an almost perfect overlap between the cereals with the worst nutrition ratings and those marketed most aggressively (Brownell et. al., 2009). Because of these changes in the food market, advertising has become relentless and overwhelming as it is increasingly carried out in many new forms.

Food and food service companies spend more than 11 billion dollars annually on direct media advertising in magazines, newspapers, radio, television and billboards (Nestle, 2007, 16). Most of this astronomical sum is used to promote the most highly processed, convenience foods like candy, snacks, alcoholic beverages, soft drinks, and fast foods. Successful campaigns are carefully researched, targeted to specific groups, and repeated frequently. In addition to the increased time devoted to television commercials, advertisers are increasingly using "product placements," which integrate a specific branded product into television shows or movies. Products shown can have unconscious priming effects on consumers by making them feel hungrier or crave the foods that they are seeing on screen. These new approaches are called "stealth marketing," and the objective is to advertise a product in such a way that people are not aware you are trying to persuade them to buy it (Brownell et. al., 2009).

This particular method of food advertising is so incredibly effective because it operates so far below people's consciousness that it hardly ever gets thought of as an influence on food choice. Most people have very little awareness of how these techniques influence their behaviors, claiming that they are too smart or too aware to be influenced by food advertising. However, as Nestle claims: "We may believe that we make informed decisions about food choice, but we cannot do so if we are oblivious of the ways food

companies influence our choices" (Nestle, 2007, 360). This is supported by research that consistently demonstrates that food advertising does influence consumers' behavior- even that of adults. Cohen describes that our greatest vulnerability to advertising is through our "non-cognitive processing," where we impulsively react to superficial appearances, gestures, and sounds and fail to analyze the information carefully. This is how the brands, symbols and slogans of foods we have seen advertised become ingrained in our minds, without our knowledge. Cohen says that despite having the theoretical capacity to inhibit non-cognitive processing, adults seldom do (Cohen, 2013, 86). Thus, these advertisements embed themselves deep within our subconscious, shifting their effect from persuasion to manipulation.

This aggressive food marketing occurs not only through the use of media advertisements, but also extends to the placement and promotion of food in supermarkets in ways that can encourage "impulse buys" of candy and snack foods. Making snack foods and sweets highly visible and accessible is now a top priority as marketers have learned that placing foods in prominent locations can dramatically increase sales. Indeed, many companies pay substantial "slotting fees" or "trade promotion fees" to ensure that their goods are front and center, on special floor displays or at the end of an aisle where people will notice them right away (Cohen, 2013, 75). This is because people are automatically attracted to special displays, and when they are, they buy more of the products they are seeing.

The checkout line, where every shopper must wait on their way to the register, offers a prime location to induce customers to purchase additional food and beverages on impulse. As you approach the checkout at a typical grocery store, you are greeted by

special displays of seasonal M&M's, single serving packages of chips, and clear refrigerators filled with sodas and energy drinks. When you actually make it to the register, there is an extensive display of every candy you might possibly be craving, such as Snickers, Kit-Kat, Twix, Hershey's, Reese's, Almond Joys- all within arms reach. This display of food at checkouts is a powerful form of marketing that induces people to purchase food and beverages that they otherwise might not, by making it convenient to reach out and grab one.

The effect of these food placements is now so powerful that more than 30 percent of all supermarket sales come from these end aisle and cash register displays dominated by candy, chips and sodas (Finkelstein and Zuckerman, 2008, 42). It is such a successful strategy, that a large percentage of retail outlets that do not sell food, such as gas stations, hardware stores, bookstores and clothing stores, now have these snack foods available as "impulse buys" at the cash register.

Another way in which the current food environment can set expectations and guide behavior in ways that promote obesity is through its manipulation of portion sizes. Its "eat more" marketing method extends far beyond billboards and television commercials to include substantial increases in the sizes of food packages and restaurant portions. As people have begun to eat out more, relying increasingly on restaurant, fast food, and pre-packaged foods for an average of six meals a week, portion sizes have steadily increased (Cohen, 2013, 14).

One study looked at serving sizes of foods from grocery stores and fast food, take-out, and sit-down restaurants from the 1970's and in present times in order to examine the change in portion sizes over time. They found that not only did all of the

food portions they measured grow rapidly during this time, but they also far exceeded USDA and FDA standard portion recommendations (Finkelstein and Zuckerman, 2008, 31). For example, during the time period assessed, the average serving size of bagels has doubled from a 3-inch diameter to a 6-inch diameter, and the average cheeseburger has gone from 5.8 to 7.3 ounces. Soft drinks in vending machines and grocery stores have swelled from 8-ounce containers, to the new "norm" of 20 ounces. Many fast food restaurants are now offering options like the Denny's Grand Slam Burger, Hardee's 2/3 pound Monster Thickburger and Burger King's Triple Whopper. Not to be outdone by fast food restaurants, many sit-down restaurants have swapped 10-inch plates, which were once the industry standard, for 12-inch sizes to accommodate bigger portions (Finkelstein and Zuckerman, 2008, 34). As you might expect, these increased portion sizes come with a large increase in calories.

This size inflation has changed what people perceive as portion norms and can influence eating habits. Cohen writes that, "nearly all people automatically eat more when they are served more" (Cohen, 2013, 45). This phenomenon has been demonstrated over and over with hundreds of people of multiple age groups and types, in both laboratory settings and natural settings. Brian Wansink describes a study he performed where participants were given one of two different sized dishes of pasta and meat- large or medium. He found that the people who were given the large dish of pasta typically ate about 23% more (150 extra calories) than those given the medium dish (Wansink, 2010, 59). Not only does this apply to the food we are served, but also the food that we buy at the grocery store. In another study conducted by Wansink, where groups of adults were given a half-pound or a one-pound bag of M&Ms to enjoy while watching a film, he

found that those who were given the one-pound bag ate almost twice as many (264 calories more). He concluded from this experiment that we automatically eat more from big packages, because big packages, like big portions, suggest a consumption norm (Wansink, 2010, 60). When we bring a big package into our home or are served a larger portion of a meal, we think it is typical, normal and appropriate to eat more of it than we would otherwise.

The drop in food prices has caused this increase in portion sizes, as restaurants and food suppliers realize that it is a low-cost strategy to attract and retain customers. Restaurant chains have begun to flaunt the enormity of their portions in efforts to attract customers, and the prospect of larger portion sizes at relatively low prices has been successful in appealing to Americans' economic sensibilities. Customers are quick to order double-scoop ice cream cones and choose the large fry over the small because the relative prices discourage the choice of smaller portions (Nestle, 2007, 26). Wansink informs us that, "Our bodies don't have any idea what the normal amount to eat is, so it look around for clues and signals." When all you see is that big portion sizes cost less than small ones, it can be confusing (Wansink, 2010, 32).

This description of the modern food environment is meant to show that many people eat what foods they eat and how much they eat largely because of what is around them. For this reason, the approach of urging individuals to simply "be more responsible" is not working. Urging people to change their behavior will not be sufficient to reduce calorie intake. There is a need for comprehensive measures to improve the food environment we live in. The most important and modifiable steps in the chain of events that lead to obesity are at the point of purchase and the point of consumption, and these

are the areas that need to be targeted (Cohen, 2013, 9). Food companies are quick to argue that what we make of our abundant food supply is a matter of personal responsibility. However, "we do not make food choices in a vacuum" (Nestle, 2013, 32). We may believe that we make informed decisions about food choice, but the evidence shows us that in many ways we are powerless against the way that food companies influence our choices and behaviors. For this reason, regulatory changes to the current food environment are necessary.

Chapter 4: *Case Study of New York City*

As research continues to build on the significant influence that the current food environment has on our health and well being, many places are stepping up to try to implement legislation that might work to improve our surroundings and get rising levels of obesity under control. In particular, New York City's health agency has been a national leader in developing and implementing regulations that promote public health. These policies, aimed at helping people make healthier food choices and live healthier lives, are part of a larger effort to reduce obesity and the health problems associated with it. The movement has been led largely by former mayor Michael Bloomberg, who committed himself to combating obesity in New York City during his time as mayor. Bloomberg calls his policies "aggressive quality of life enhancing public health initiatives," and hopes that they will improve the lifespan of residents (Bloomberg, 2014). The city has been groundbreaking in their attempts to create legislation that will reduce obesity, and a few of their policies have worked and been widely replicated. For this reason, using New

York City as a case study for looking at policies targeted towards reducing obesity will be an effective way to analyze whether these interventions are working, and whether they could be expanded across the nation.

New York City was the first place in America to pass a menu labeling law. In 2006, the NYC Health Department amended the city Health Code to require chain restaurants with more than 15 locations nationwide to post calorie counts on menus, menu boards and item tags. It also required that calories be posted in a size and type-face at least as large as the name of the menu item or the price (Center for Science in the Public Interest, 2013). An initial version of the rule was blocked by federal law, but a revised version was passed and implemented in January of 2008 (Farley et. al., 2009).

The ultimate reasoning behind this new law was to help Americans make informed choices about the nutritional content of the food they purchase. It is difficult for people to limit their intake of calories at food service establishments without nutrition information, because most people are unaware of the number of calories or the amount of fat, sodium or sugar in a typical fast food meal. One study conducted by the Rudd Center for Food Policy and Obesity found that 9 out of 10 people underestimated the number of calories in unhealthy menu items by an average of 600 calories (Yale Rudd Center, 2008). When deciding what nutrition information restaurants should provide, it was decided that the calorie content of food is the single most important piece of information for consumers. Providing information about other nutrients risked reducing the impact of the calorie information on obesity, particularly at restaurants where customers make purchasing decisions in a matter of seconds. In addition, the number of calories in items at fast-food restaurants is very strongly associated with other nutrients such as

carbohydrates and fat and moderately associated with sodium (Farley et. al., 2009). There are usually a great variety of meals at restaurants, some with better nutritional quality than others, but without nutrition information, it can be difficult to compare options and make informed decisions (Center for Science in the Public Interest, 2011). Therefore, the goal was that this information, clearly displayed at the point of decision, would help consumers limit excess caloric intake.

The majority of studies conducted on the efficacy of menu labeling in New York City seem to support the idea that menu labeling does have an impact on consumers' behavior overall, although there may be a more significant impact on certain customers and chain restaurants. In an online survey of New York City residents, 75% of participants reported that the nutrition information has made an impact on their ordering, and claim that they are ordering lower calorie options, no longer ordering certain menu items, and ordering smaller portion sizes (Center for Science in the Public Interest, 2012). Additionally, the city's Department of Health and Mental Hygiene has released preliminary data showing evidence that people bought food with fewer calories at nine of thirteen fast food and coffee chains included in the study. The four chains with the most statistically significant decreases were McDonald's, Au Bon Pain, KFC and Starbucks; diners who saw and acted on calorie information at these chains bought food containing on average 106 fewer calories (Morgan, 2009). Researchers point out that these restaurants were the ones playing up their low calorie options, which may have also had an impact on consumer behavior.

Additionally, there is evidence that calorie labeling has spurred nutritional improvements in many chain restaurants by incentivizing them to introduce healthier

meal options, reformulate existing menu options, and reduce portion sizes. A comparison of menu items in New York City before and after calorie posting requirements went into effect showed significant decreases in calories in several items. In addition, many popular chains like the Cheesecake Factory and California Pizza Kitchen have introduced new sections to their menus that highlight options with lower calories and smaller portions (Center for Science in the Public Interest, 2012).

This law was not passed without any opposition. The New York State Restaurant Association (NYSRA) raised several complaints about the constitutionality of the rule and filed two lawsuits. In 2007, a U.S. District Court Judge struck down the first version of the Board of Health rule, which applied only to restaurants that had already voluntarily made calorie information available either online or in a pamphlet. The judge ruled that the Health Department could not tie its posting requirement to a restaurant's prior voluntary provision of calorie information (Farley et. al., 2009). The Health Department then redrafted the amendment to mandate calorie posting in all restaurants part of chains with 15 or more stores, and it was only after this revision that the courts ruled in favor of the Board of Health's rule when the NYSRA appealed the ruling for the second time in 2008.

This law was passed and implemented despite this opposition from the restaurant industry for a few key reasons. First of all, its implementation at the local level versus the state or federal level made it much easier to pass. Innovation in public health is often easier to accomplish locally than nationally, primarily because the industry lobbies do not have nearly as much influence on municipalities as they do with federal and state governments (Farley et. al., 2009). In addition, the regulation of restaurants and food

distribution is an area of public health where local governments have substantial authority, expertise and enforcement capacity. Therefore, mandates created by bodies like the Board of Health have the jurisdictional power to stand up in court. It is also much easier to enact change little by little on a smaller scale, rather than trying to make drastic changes all at once.

Second, the fact that an appointed body, in this case the New York City Board of Health, rather than an elected one was the first in the United States to require calorie posting was an important factor in its approval. Appointed bodies are less likely to be influenced by the lobbying of huge corporations because they do not need to worry about remaining on the good side of these companies to receive support during election time. This is significant in this case given the immense lobbying capacity of the restaurant corporations in opposition to the menu labeling law. The popular support for this rule from the general public has also contributed to its success. Aside from resistance from the restaurant industry, public reaction to menu labeling in New York City has been overwhelmingly positive, with 89% considering it a positive move (Center for Science in the Public Interest, 2012). Rather than impeding on freedoms by dictating what consumers should eat, it simply gives them the information necessary to make their own informed choices. Public opinion of the law is very important because citizens' reactions can determine whether the regulation will be considered a model for the rest of the nation, specifically other places attempting to implement similar laws.

New York City's experience with calorie labeling demonstrates that innovation with food regulation to address nutritional problems is entirely possible at the local level and that it may be met with greater success than similar efforts at state and federal levels

(Farley et. al., 2009). This example ultimately shows that although initial legislative efforts might be denied, the rationale behind their rejection can help us get a better understanding of how we can build a stronger piece of legislation that will be successfully passed and implemented in the future. Additionally, the calorie labeling law in New York City became a model for labeling laws across the country. In 2010, as part of the Patient Protection and Affordable Care Act, Congress passed a national calorie labeling law, which was modeled after the original law created in New York City. The new law has finally gone into effect, as of November of 2014. The New York City experience with menu labeling was used as evidence that calorie labeling does have a considerable effect on consumer behavior and was important in convincing legislators that it was a worthwhile endeavor to pursue on the national level.

Another piece of ambitious public health legislation brought forward in New York City was Mayor Bloomberg's proposal to ban the sale of sodas and sugary drinks larger than 16 ounces. The ban was proposed to apply to restaurants, delis, movie theaters, stadiums and streetcars, but did not include grocery or convenience stores that don't serve prepared food. It also excluded diet soda, other calorie-free drinks, or any beverages with at least 50% milk (Susman, 2012). Bloomberg's administration sent it to the Board of Health, where it was unanimously approved in 2012. However, the ban was challenged in court by several corporations in the beverage industry, and was overturned by New York's Court of Appeals shortly before the ban was due to go into effect in March of 2013 (Godoy and Aubrey, 2013).

Mayor Bloomberg's policy initiative to limit serving sizes of sugary drinks was intended to take an important step toward the public health aim of reducing sugar intake

and related obesity prevalence. At the time of its proposal, Bloomberg declared: "It's time to face the facts: obesity is one of America's most deadly problems, and sugary beverages are a leading cause of it" (Bloomberg, 2012). He is right; there is no question that sugary drinks add empty calories to the American diet, and larger serving sizes are increasingly offered with quantity discounts that encourage people to "go bigger." This measure would help to eliminate these types of options, which continually give people financial incentives to consume excess quantities of sugar-sweetened beverages. Bloomberg continued, "Our proposal for reasonable portion sizes won't prevent anyone from buying or drinking as much soda as they want, but it will help people keep from inadvertently taking in junk calories simply because the small drink they ordered was actually very large" (Bloomberg, 2012). The law hoped to make smaller drink sizes the "default option," thereby forcing customers to make a conscious choice to order a larger size.

However, similar to the menu labeling law, the big soda ban also faced some opposition; in this case, it was strong enough to lead to the ban's failure. Opponents to this initiative fell into two different categories: those with vested interest in the beverage industry, and members of the general public who felt that Bloomberg was impinging on their freedom of choice. The American Beverage Association, the National Restaurant Association, and several other businesses filed a lawsuit, alleging that the mayor and Board of Health did not have the power to make the decision without input from the City Council. In a 4-2 decision, New York's Court of Appeals ruled in favor of this lawsuit, stating that the city's Board of Health lacked the authority to impose the ban; they ruled that such policy-making is reserved for legislative bodies, which in this case means the

New York City Council. Without any legislative delegation or guidance, the Board engaged in law-making and thus "infringed upon the legislative jurisdiction of the City Council" (Godoy and Aubrey, 2013). It is likely that Bloomberg took the proposal to the Board of Health because it is mayoral appointed, meaning that all eleven members were appointed by Mayor Bloomberg. However, in this case the ban was outside of their legal authority, and Bloomberg was chastised for "circumventing proper legislative channels" (Kliff, 2013).

Additionally, federal judge Milton Tingling wrote in his ruling that the ban is "arbitrary and capricious." He said that the many exceptions are made on "suspect grounds" and will lead to uneven enforcement even within a particular city block. "It applies to some but not all food establishments in the city. It excludes other beverages that have significantly higher concentrations of sugar sweeteners and/or calories on suspect grounds," Tingling wrote in the 36-page ruling. "The loopholes in this rule effectively defeat the stated purpose." The judge's opinion cites these loopholes as one of his primary reasons for striking down the law, since he believed that they would render the regulation ineffective (Kliff, 2013).

Although this ban was unsuccessful, we can look at the causes of its failure to inform us of changes that are necessary in order to create a more successful policy that will pass and have its intended effect in the future. One of the most important reasons for its failure, pointed out by Judge Milton, were questions raised from the start about its workability and effectiveness. Because of jurisdictional quirks, not all businesses involved with selling food and beverages would have been affected. For example, perhaps most famously, 7-Eleven's "Big Gulps" would be exempt, as the convenience

store is not under the health department's jurisdiction (Kliff, 2013). These exceptions to the law would make the ban somewhat arbitrary and would have seriously limited its effectiveness. David Just, a behavioral economist at Cornell University, explains that the overwhelming majority of soda is bought in grocery stores. Therefore, the ban would have targeted the "occasional customer," rather than the "regular customer," and "would not likely have made much of an impact on overall calorie intake" (Godoy and Aubrey, 2013).

Another reason for its failure was its lack of public support, sparked by the manner in which Bloomberg went about passing the law in bypassing the City Council. Polls showed that the proposal was opposed by a majority of New Yorkers, who cited a sense that Bloomberg was overreaching with the plan and that consumers should have the freedom to make a personal choice. The fact that the proposal was so strongly associated with Bloomberg, and not a legislative body, led many people to feel that he was surpassing his power as mayor. It also prompted panic among powerful beverage companies, who feared that their products could be widely branded as a threat to public health and sued on the grounds that it interfered with consumer choice.

The stated reasoning behind the overturn of the big soda ban reflects similar principles in the dismissal of the first draft of the menu labeling law. Both were rejected partly because their limited coverage of only select food and drink vendors made them arbitrary and predicted to be ineffective. In the case of the menu labeling law, the regulation was revised to fix the criticism it received, and passed with these updates. The revised law was much more effective than the first would have been, showing that its initial overturn proved beneficial in the long run. It is possible that New York City could

try to remedy the soda ban in the same way it saved calorie labels: by making the regulation more sweeping and lessening the exemptions to the portion cap rule. If the soda ban went through the proper legislative channels and thus had the authority to apply to grocery and convenience stores, it could potentially see similar success. It remains to be seen whether a revised form of the law might be attempted in the future. Regardless of any future attempts to revive the rule, it was beneficial in the way that it started a "long overdue national conversation about obesity and its causes" (Bloomberg, 2014). Although the proposal wasn't perfect, it is headed in the right direction.

Another area where New York City has taken a leap in quality of life enhancing public health legislation was through its ban of trans fats. In December of 2006, New York City became the first city in the U.S. to ban the use of trans fats in foods at restaurants. In a unanimous decision, the Board of Health passed an ordinance requiring food preparers to reformulate recipes or eliminate certain ingredients, so that their food contained no more than .5 grams of trans fats per serving. Restaurants were given until July of 2007 (6 months) to phase out the use of these chemicals. It was stated that there were fines between 200 and 2,000 dollars for those who violated the ordinance, and that violations may be posted on the health department's website (LaMance, 2014).

Trans fat is considered by many doctors to be the worst type of fat you can eat. It is contained in partially hydrogenated vegetable oil, which is used by many restaurants and fast-food outlets, because it is easy to use, inexpensive to produce, and lasts a long time. The artificially thicker oil is less likely to spoil, so foods with it have a longer shelf life, and it can be used many times in a deep fryer, which means that it doesn't have to be changed as often as other oils. In this way, it provides a cheaper alternative to provide a

chewy crispness to food traditionally made with butter, such as cookies, French fries and fried chicken (Ban Trans Fats, 2007). However, this artificial oil is dangerous because it raises the level of "bad cholesterol" and lowers the level of "good cholesterol," thus clogging up arteries and leading to illness and death from heart disease. It can also make the arteries more rigid, cause insulin resistance, cause or contribute to type 2 diabetes, and contribute to other serious health problems such as weight gain and obesity (Ban Trans Fats, 2007). According to the Harvard School of Public Health, as many as 228,000 heart attacks might be avoided in this country each year simply by eliminating trans fats from the diet and using healthier fats instead (Harvard Health Publications, 2007).

The Institute of Medicine concluded that there is no safe level of these fats and recommended that people should eat as little as possible (Ban Trans Fats, 2007). Bloomberg and the Board of Health cite this harmful impact on health as the reasoning behind the ban. In a statement about the proposed ban of trans fats, Bloomberg said that it would eliminate an "artery-clogging and unnecessary" ingredient from the food supply. He argued that giving customers a healthier default option would help them to improve their health without even having to make a conscious change in their eating habits (Bloomberg, 2006).

The restaurant industry initially opposed the ban, arguing that it was an "impractical and unwanted intrusion by the government into free enterprise and civil liberties" (LaMance, 2014). They claimed that eliminating trans fats would be expensive and would alter the taste of foods. However, most restaurants were able to meet the new guidelines fairly easily. With artificial trans fat increasingly seen as a health risk in the years leading up to the ban, many city restaurants had already begun seeking alternative

ingredients long before the new regulations were proposed. By giving restaurants 6 months to adhere to guidelines, these places were given additional time to experiment with new ingredients and recipes that would preserve the taste of their food. Additionally, there has been little traction to contest the ban because trans fats are unnecessary additives that many Americans are unaware is even in the restaurant foods that they are eating. Therefore, convincing a judge that profit margins outweigh the health risks would be a difficult task.

Since the ban was fully enacted in 2008, it appears to have had its intended effect. The city reports that nearly all of its 25,000 restaurants have been compliant (MacMillan, 2012). More than a dozen fast-food giants have switched their cooking oils, bakeries have found alternative types of shortening, and even Crisco, the original artificial trans fat, was reformulated (Park, 2012). An analysis of receipts collected at fast-food chains before and after the ban went into effect estimates that the average trans fat content of customers' meals has dropped from about 3 grams to 0.5 grams. Additionally, the portion of meals containing less than 0.5 grams, which is considered an acceptable amount, increased from 32% to 59% (MacMillan, 2012). A report from the Centers for Disease Control and Prevention found that blood levels of trans fatty acids among adults in the United States declined by 58 percent from 2000 to 2009 (Park, 2012). It seems from these results that by making the default option the healthier choice, everyone benefits regardless of their nutrition awareness or willpower. In addition, studies have shown that switching to trans fat-free frying oils did not increase costs, and that the trans fat-free frying oils most companies switched to taste just as good as the previous oils used. For example, even McDonald's, which had anguished over the potential impact on its French

fries, said its phase-in of the new oils has gone unnoticed by customers (MacMillan, 2012).

This initiative was effective for similar reasons to the menu labeling law; it was enacted locally, and passed by the Board of Health. Additionally, it was easy for companies to switch to the alternatives that this rule required because they had already developed them. While previously these alternatives were not being utilized because there was no market for them, the ban effectively created a huge new marketplace for these trans fats alternatives (Harvard Health, 2005). In addition, for consumers, the transition was seamless. Partially hydrogenated vegetable oil is tasteless, so hardly any New Yorkers even noticed the change. No foods were being banned; all that happened was that an oil or fat in the food was made healthier. Since customers did not notice any difference in their food, they felt less effected by the ban because their habits did not have to change at all. Therefore, there was public support for the law. In a poll conducted by the Wall Street Journal, 61% of respondents said they would support a ban on use of trans fats in restaurants in their city (Ban Trans Fats, 2007). Therefore, another contributing factor to this law passing and being successful is that consumers did not need to change their habits or behaviors; rather, the default option was simply made healthier for them.

The ban of trans fats proves to be another example of a bold public health measure that faced initial criticism, only to gain widespread acceptance and support. Following New York City's ban of trans fats, Westchester County, Boston, Philadelphia, Montgomery County (Maryland), King County (Washington) and many other places have followed its lead and banned trans fats. Now, the FDA is currently considering a

nationwide ban of trans fats. Therefore, by proving the feasibility of banning trans fats in a local setting, and showing that a ban of this nature can actually have a positive impact on people's health, this initiative acts as a model for other places and encourages other localities to follow New York City's lead.

These examples show us a few things that are important in creating successful public health legislation and clearing regulatory hurdles. First, changes should be implemented at the local level and expanded outward from there. Health regulations at the local level may seem small and insignificant, but they can have a measurable effect on public health and levels of consumption. Second, public health legislation is more effective and is more likely to stand up in court if it comes from a legislative body and not an elected individual. Finally, regulations are more successful and will gain more popular support if they do not cause people to change their habits or behavior. The public can quickly turn on a policy initiative if the change makes them feel as though the government is interfering in their daily lives or taking away their free will to make food choices. The menu labeling and ban of trans fats are two examples of bold public health measures that faced fierce initial criticism, only to gain widespread acceptance and support as people realized that the changes would affect them very minimally.

These experiences of bold public health legislation in New York City show that state and local health departments do have the existing authority to enact public health legislation, and that these policies can have an important effect in combating obesity and the chronic diseases associated with it. The changes that they have made are small, but even small changes are meaningful, and they have the power to cause profound changes if they are expanded across the nation. Local public health ordinances are often the

catalyst for new public health policy directions. Menu labeling, which started in New York City, was recently expanded nationwide as part of a provision in the Affordable Care Act. The city has since become a model for similar rules intended to combat obesity and promote good nutrition in many other cities and counties. As Bloomberg says, "The groundbreaking public health policies we have adopted here in New York City have become a model for the nation for one reason: They've worked" (Bloomberg, 2013).

Chapter 5: *Policy Proposals*

The policies that have been implemented or attempted in New York City are not the only policy options with the potential to have a positive impact on reducing rates of obesity. In this section, I will propose a few prospective policy solutions that could be effective in helping to reduce obesity, based on their target towards affecting change in the food environment. Making an impact on rates of obesity will be about creating an environment that doesn't serve people more food than they need at a restaurant, doesn't promote impulse buying of high calorie foods, and doesn't make people feel hungry when they don't need to eat. For this reason, successful regulations should be aimed at helping people make deliberate choices, rather than automatic ones that are usually unhealthy. We should aim to make the easiest food choices, or the defaults, the healthiest choices. By looking at public health regulations made for other public health issues, like smoking and alcohol, we can see how policies of this nature that protect peoples' health have a precedent in this country and have been successful in the past.

One possible policy that could help discourage people from eating unhealthy foods would be to establish a tax on unhealthy foods or beverages. This is a policy proposal that has been brought up and debated for many years. Kelly Brownell, a PhD psychologist and director of the Rudd Center for Food Policy and Obesity has been pushing for a "sin tax" or "fat tax" as far back as the 1980's. A tax of this nature is argued to serve two purposes. First, the money raised can be used to finance obesity prevention programs, offset the costs of obesity to Medicare and Medicaid, or subsidize the price of healthier foods. Second, since falling food prices, especially fattening foods, are partly responsible for the obesity crisis, taxing these foods should reduce their consumption, and lower rates of obesity (Finkelstein and Zuckerman, 2008, 147).

A feasible "sin tax" to begin with that will target obesity is a tax on sugar-sweetened beverages. This policy would share similar aims as Bloomberg's attempted "big soda ban": to reduce the consumption of empty calories through sugary drinks. However, using a sin tax to accomplish this goal would be more practical and likely to stand up in court. The proposal considered most frequently would introduce a tax of a penny per ounce on beverages with added sugar or other caloric sweeteners (Brownell et. all, 2010). Beverages sold at all retail locations, including restaurants, grocery stores, convenience stores, and entertainment venues would be affected by the tax; there would be no exemptions. In order for the tax to work, people need to see that the price of sugary drinks has gone up, which means the kind of tax implemented is also important. Many states have already implemented a sales tax on sugary drinks; however, this type of tax is paid at the checkout, and most customers probably will not be aware that they are paying extra for a sugary drink unless they look at their receipt afterwards. Instead, an excise tax,

which is an indirect tax charged on the sale of a particular good, should be levied. With excise taxes, the manufacturers, or distributors of the drinks pay the taxes. They pass on that cost to consumers by raising prices, which may make customers think twice about buying it (Friedman, 2012).

Another important part of the tax is what its revenue is used for. Its revenue should be designated for subsidies to lower the cost of healthy foods such as fruit and vegetables, thereby trying to reverse the unfortunate reality that it costs more to eat a healthier diet. If healthy foods are cheaper than unhealthy options, then they will appeal more to consumers' economic sensibilities. For example, researchers at the University of Minnesota found that cutting the price of low-fat foods in vending machines by 10 percent increased sales by nine percent, and that bigger discounts correlated with even greater relative sales increase (Farley and Cohen, 2006). Using the revenues for a purpose that will benefit consumers is also a way to garner public support for it. One survey found that 45 percent of adults would support junk-food taxes if the revenues went to food subsidy programs (Farley and Cohen, 2006). This popular support will go a long way in helping the tax to pass smoothly.

Targeting sugary drinks is an important place to begin when aiming to reduce obesity, because sugary drinks are the single biggest source of added sugars in our diet today. One cause of obesity is the addition of too much added sugar in our diets, and according to the 2010 Dietary Guidelines for Americans, more than half of it comes from drinking sodas, fruit drinks, sports drinks and other sugary beverages (Friedman, 2012). These drinks have very little, if any, healthy ingredients in them and there is strong evidence that they are linked to weight gain, obesity, type 2 diabetes, and other chronic

diseases. Many scientists allege that high-calorie beverages lead to weight gain because these drinks do not make people feel full, and thus will not prevent them from eating something else; in other words, they are empty calories (Cohen, 2013). For this reason, reducing the consumption of sugary drinks should be a major public health goal.

A "sin tax" is a potentially important way to influence obesity because there is a significant link between food prices and consumer behavior. As the price goes up on foods that are not considered necessities, such as sugary drinks, people will buy fewer of them. According to the March 2009 issue of Milbank Quarterly, increasing the cost of unhealthy foods while simultaneously decreasing the cost of healthy foods, like fruits and vegetables, has a measurable connection with lower body weight (Trust for America's Health, 2009). Thus, the combination of taxing energy-dense fast foods and sugary foods, while subsidizing healthy foods has the potential to create a measurable effect on weight.

As I have discussed before, reducing obesity is about improving the underlying food environment that we live in and making it easier for people to make healthy choices. Using a tax to increase the price of junk food, while subsidizing healthy foods would accomplish this aim by making it less convenient and cost effective to buy sugary drinks, and more convenient and cost effective to buy healthy foods. Brownell argues that a tax on unhealthy foods would be a proactive response to a food industry and consumer culture that increasingly promotes high-fat/low-nutrition products as the cheapest, tastiest, most convenient, and most available dietary options (Brownell et. al., 2009). Economists have determined that such a tax would reduce consumption of sugar-sweetened beverages by up to 23 percent, which would reduce the number of calories from sugary beverages people drink each day, and be enough to effect health care costs

and generate $150 billion over ten years (Brownell et. all, 2009).

Industry arguments that this would create a hardship or remove one of life's "pleasures" can be refuted because taxing unhealthy beverages would not prevent anyone who really wanted one from buying it; it would simply make it a little less convenient. Although a tax of a penny per ounce would reduce population consumption of sugared beverages, it would still leave the average American consuming 38.5 gallons of sugary beverages per year (Brownell et. all, 2009). Thus, a tax on sugared beverages would not interfere with any freedom of choice. Another common argument is that the tax is regressive and would end up inordinately affecting the poor. However, this argument can be countered by the knowledge that obesity and diabetes are regressive diseases that affect the poor in greater numbers. Moreover, revenue from the tax could be used for programs that would specifically help the poor (Friedman, 2012). This policy would likely garner more public support than Bloomberg's "Big Soda Ban," because consumers would not feel that something they enjoyed was being banned. At the end of the day, Americans may want to give up unhealthy beverages, but they prefer to do it through the gentle nudge of a food tax, rather than an outright ban.

There is a strong precedent in the United States for enacting a tax to help solve a public health issue. "Sin taxes" were introduced onto cigarettes and alcohol many years ago and have been effective both at raising significant revenues and reducing their use. In fact, rising cigarette taxes are responsible for the vast majority of the reductions in smoking rates witnessed over the past few decades (Finkelstein and Zuckerman, 2008, 147). The federal tax hike, which was signed into legislation by Obama in 2009, has helped push tobacco use down to 18.9% in 2011, which is the lowest level on record

according to CDC surveys (Cauchon, 2012). This precedent would help the tax stand up against any legal opposition, and is a successful model to point to for any who feel skeptical that sin taxes have an affect on behavior.

Another possible policy intervention that could help people moderate their food intake would be to create restrictions on grocery store layouts to reduce impulse marketing. We should create a regulation that limits what can be displayed at highly salient locations like the end aisles and cash registers. Candy, chips, sodas and other unhealthy foods should be banned from these areas, and should instead be replaced with healthy foods like fruit and vegetables. The foods displayed there should be easy items for customers to pick up, like apples and bananas. Foods that are high in sugar and fat should be restricted to more obscure locations such as the back of the store, the bottom shelf, or above eye level; places that require a deliberate search to find. This policy will still allow people who really want to buy these foods to do so, but in following with the principle "out of sight, out of mind," will help those who want to avoid them.

The utilization of impulse marketing techniques to boost sales of candy, sodas, and other junk foods is highly effective. Studies show that end aisle and cash register displays in supermarkets account for 30 percent of sales, and people are 5 times more likely to buy these products (Cohen, 2013, 133). According to an ongoing shopper behavior study conducted by The Integer Group, nine out of ten shoppers make impulse purchases, buying items that weren't on their shopping lists (Neporant, 2012). Cohen explains that impulse marketing is "intended to disrupt cognitive decision-making and encourage impulse purchases based on emotion, contextual cues, and instant gratifications." She says, "Because our self-control tends to wane on any shopping trip

due to all the decisions and trade-offs we need to make, many of us are highly vulnerable to impulse marketing strategies when we shop" (Cohen, 2013, 132). In other words, the supermarket is arranged to make the unhealthy options the easiest ones, physically and psychologically. For this reason, it is no surprise that the average American woman eats more than 14,300 calories a year in impulse purchases alone, and men a whopping 28,350 (Neporant, 2012). Companies knowingly exploit these human tendencies; they know that customers' willpower is at a very low point at the end of a shopping trip, and vendors pay extra "slotting fees" to guarantee their products will be placed in these prime locations (Cohen, 2013, 49).

Therefore, a restriction that limits what products can be displayed in these salient locations would get rid of those objects that tempt us to impulsively grab high calorie foods as we check out, and could thus help people reduce unhealthy, impulsive choices. This strategy is all about changing the food environment by making the healthier option the easier and more convenient option, or changing the "default." Product placement should be considered a hidden risk factor, and more should be done to help people make good food choices (Cohen, 2013, 123). Allowing sneaky food marketers to push people to buy food that they don't necessarily want and that is going to harm their health doesn't seem appropriate, given the rising levels of obesity. Since we know that impulse marketing works, we could just as easily use it to make the most nutritional choices the nearest and most attractive ones. Additionally, based on nationwide surveys in which 78 percent of respondents say that they found junk food at checkouts to be "annoying," this policy would not be likely to face any major pushback from the general public (Live Science, 2012).

Another area where we have seen similar policies enacted to protect consumers' health is with alcohol regulation. A number of comparable regulations are already in place to protect people from the impulse marketing of alcohol. For example, some states have limits on how alcohol can be displayed and sold, and many states don't allow the sale of alcohol except in specific state-run stores. In California, selling beer from iced barrels or from temporary displays placed within five feet of the front door or cash register is prohibited (Cohen, 2013, 132). These regulations are all presumably to discourage impulsive purchases that lead to drinking and driving and thus protect citizens' health. As with the proposed regulations on grocery store layouts, these restrictions on alcohol display do not prevent people from buying alcohol, but rather make it a little bit less convenient and ensure that the decision to buy alcohol is a pre-determined one. Due to their similar goals and effects, these restrictions on the impulse marketing of alcohol can be referenced as a precedent for enacting a similar regulation with food.

A final policy intervention that would help people reduce their intake of unhealthy foods would be to regulate "combo meals" at fast food restaurants to be smaller and healthier. The "default" in a combo meal should be a healthy option, like a side salad or fruit salad, rather than French fries, and a bottle of water instead of soda. Customers would be more than able to switch their sides to fries and soda, but it would be a conscious decision and effort on their part. Additionally, the size of a soda and fries that automatically comes in a combo meal should be smaller, and regulated across the industry so that companies don't feel the need to increase portion sizes to "one up" their competitors. A standard portion size should be a small fry and an 8-ounce soda, although

customers would be able to ask for larger sizes if they wished to. A policy of this nature could be expanded to all restaurant meals and not just fast food, but fast food restaurants would be an easier place to start.

The existence of combo meals in their current state can be very dangerous for customers' health, because when eating out at restaurants, especially fast food restaurants, customers have a hard time making decisions and will thus often rely on the default options that are offered. Evidence from behavioral economics has demonstrated that humans are heavily influenced by default conditions in their environment. Cohen explains that when we are overloaded, we tend to make decisions impulsively; when it comes to food, impulsivity typically leads to nutritionally poor choices (Cohen, 2013, 36). Researchers Kathryn Sharpe from the University of Virginia and Richard Staelin of Duke University recently conducted an in depth study on the consumption effects of combo meals. In their study, 215 American adults imagined they were visiting nine fast-food outlets on a cross-country road trip. The participants were asked to order from different menus, which either included combo meals of a burger, fries, and a drink, or offered the same items a la carte. Their results found that when meals were bundled, the number of people who bought fries increased by 15 percent and people ended up with larger quantities of soda, together resulting in an average increase of 110-130 calories per meal. Overall, they concluded that if a combo meal is offered, customers will consistently choose that because it's cognitively easier to order and it seems like an appropriately sized meal for the average customer (Oches, 2010). In this way, combo meals are an effective strategy that fast food restaurants use to nudge customers into buying more food. It is generally successful because it lowers the number of decisions customers have

to make and it makes them feel as though they are getting a bargain, since they can get all three items for less money than if they were to purchase the items separately, even if they did not originally want all three items (Cohen, 2013, 88).

However, this tendency of consumers to automatically go for the combo meal, even though they might not want the fries and soda, is a very dangerous habit. Studies show that nearly all people automatically eat more when they are served more, regardless of their level of hunger (Cohen, 2013, 51). Since portion sizes are generally larger in combo meals, these bundled options drive customers to consume larger, unhealthier meals with a lot more calories than if they had just ordered the items separately. A University of Wisconsin study showed that the small price increase of 15 percent for a combo meal delivered an extra 73 percent more calories (Trust for America's Health, 2009).

This regulation would be successful in changing the underlying food environment that causes people to be obese by making the default option at fast food restaurants the healthier one. It would help people eat healthier foods and smaller portions by forcing them to actually think about what they are ordering and make the conscious decision to eat something unhealthy if that is what they wish to do. Regulations that help people make deliberate choices rather than automatic ones are important in settings where people have to make important decisions, but are in a hurry, affected by emotion, or stressed out (Cohen, 2013, 143). This regulation would not prevent people from buying a combo meal containing whatever food they wanted, but it would prevent them from automatically getting something that could be harmful to their health just because they stuck with the default option without thinking carefully, or because they thought that it was more cost

effective. Shrinking the default size of a soda from 16 ounces to 8 ounces might not seem like a big change, but an extra 8 ounces of soda a day can add up to about a 5-pound weight gain in a year (Oches, 2010). In addition, recent cost-effectiveness analyses of obesity treatment and prevention strategies suggest that policy interventions to change these defaults are the swiftest and most cost-effective way of creating change (Brownell and Novak, 2012).

This regulation would not adversely impact the fast food industry. The portion sizes in combo meals have increased in the last few decades as each fast food firm continues to try to one-up each other. Whereas a 21-ounce drink used to be the large size, it is now the standard size given out in combo meals. If the entire industry adopted size standards, firms could compete more on price and quality, rather than quantity, which would ultimately benefit themselves and their customers (Cohen, 2013, 145). By introducing a smaller drink size into the combo meal, profits would not be adversely affected, and average caloric consumption would go down by 7 percent (Oches, 2010).

The large and powerful corporations that make up the food industry would no doubt initially be in strong opposition to the policies I have suggested, because of the real or perceived negative impact they would have on sales of their products. However, with enough "social pressure" coming from public health groups, social media activists, and other obesity advocacy groups, these companies can be pressured into removing their opposition, and potentially even supporting these obesity prevention policies. If enough publicity is generated that exposes the manipulative practices of the food industry, these companies can be portrayed as corporate villains that do not care about the health and well being of their customers. Although big food companies are working hard to increase

sales of the unhealthy products that are most profitable to them, these companies do not want to be vilified for helping make people fatter and accused of contributing to rising rates of obesity. Food companies are keen to show that they take the obesity problem seriously, and are willing to go to great lengths to maintain a positive public image, even if their profits may take a small hit. The success that social pressure can have on the behavior of food companies is already being seen. For example, based on thorough scrutiny of their recent advertising practices, the International Food and Beverage Alliance (IFBA), a trade group of ten giants including Coca-Cola, Mondelez and Nestle, has given global promises to make healthier products, advertise food responsibly and promote exercise (Economist, 2012). With enough social pressure, these food giants that hold a significant degree of power in determining legislation can be cornered into supporting important obesity prevention policies in order to protect their own public image.

Chapter 6: *Conclusion*

As so many are quick to point out, it is not the role of the government to force you to eat healthier or to compel you to rid junk food from your diet. However, it is the role of the government, particularly the public health department, to make it easier for us to obtain a healthy diet and make healthier choices by minimizing the risk factors that undermine and overwhelm us (Cohen, 2013, 117). People's decisions are affected by what surrounds them, and currently our food environment is saturated with factors that guide people towards making choices that increase their risks for obesity and chronic

diseases. For this reason, we should make it our goal as a nation to enact regulations that help people make safer food choices. Regulations that govern how food is sold and served could protect us from being manipulated by food companies, and reduce exposure to foods that increase the risks of chronic diseases. These regulations will not stop people from making their own decisions, but rather will make it easier for people to make informed and transparent decisions, rather than relying on the default options which might compromise their health.

These regulations will no doubt encounter resistance, as is the case with all calls for change, especially among those who are profiting massively from the current conditions (Cohen, 2013, 111). However, as we learned in looking at New York City as a case study for obesity regulatory action, public health policies are much more likely to pass and gain public acceptance if implemented at the local level. Therefore our towns and cities must lead the way in passing these model ordinances that will demonstrate that regulating the food environment in these ways will not be the end of the world, but instead will provide a measurable benefit to local constituents. The taxing of sugary drinks, restrictions on the impulse marketing of junk food, and the regulation of combo meals should be first implemented at the local level. Our best chance at making an impact on the current obesity trends in this country will be through efforts to prevent obesity, which is why these policies are aimed at prevention, rather than helping people lose weight. Although their impact may be minimal in noticeably reducing rates of obesity, the power that a successful and popular policy can have in influencing other places to follow their lead and enact change across the country is immeasurable.

If we can successfully implement these policy suggestions, not only will we help to improve the health and well-being of millions of people, but the prevention of obesity will also result in huge healthcare savings, particularly with our federal Medicare and Medicaid programs. For these reasons, there is a compelling need for us to step in and take a regulatory approach to solving this public health crisis. Each and every citizen is affected by obesity, whether obese themselves, or paying the costs of it financially; everyone should take a vested interest in solving this problem.

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