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Fighting the Obesity Epidemic: Challenges and Ethics

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Fighting the Obesity Epidemic: Challenges and Ethics

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Spring 2015

Switzerland: Global Health and Development Policy

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Public Health (Government)

Abstract

Background

In recent decades, a double burden of disease has emerged that requires public health workers to fight both hunger and obesity. The obesity epidemic is unlike other epidemics in that it is largely man-made and dependent on social factors and industry influences, making it difficult to fight. The high global prevalence of obesity is partially a result of globalization, which has encouraged development and the liberalizing of economies all around the world, which in turn has increased the marketing and consumption of obesogenic products. Policy solutions have been proposed and implemented in some countries, but an international solution has yet to be found.

Purpose

When addressing the obesity epidemic, there are a number of different interests to keep in mind. This paper will address the interests and perspectives of the food industry, consumers, and the government when it comes to fighting the prevalence of global obesity. By understanding what each interest has to gain and/or lose by regulating obesogenic products, a viable solution can be found to address the costs obesity has on human health and on the greater health care system.

Method

Scholarly articles and factsheets from national and international organizations were consulted for information. Formal and informal interviews supplemented background research by allowing knowledgeable experts to share their opinions and perspectives on the topic.

Results

The study found that the most promising way to fight the obesity epidemic is to decrease the number of unhealthy food options and make the easiest choices the healthiest ones. This could mean changing food standards and requiring food manufacturers to include fewer obesogenic products to protect consumers.

Conclusions

These results suggest more should be done to change international nutrition standards in processed foods. Although current national and local efforts are admirable, obesity is an international problem that will require an international response.

Preface

The inspiration for this research topic occurred almost three years ago, although I was not aware that it was happening. Halfway through my freshman year at Franklin & Marshall College I discovered the field of public health and found that it was the perfect way to combine my interest in government, policy, and health. Shortly after, I was lucky enough to attend a school-wide lecture given by Marion Nestle, an acclaimed author and professor of nutrition whose scholarly work was used while writing this paper. Nestle discussed the numerous causes of the obesity epidemic in the United States and how individuals can live healthier lives. I revisited the topic of nutrition and obesity a year later when I had to write an ethics paper for my US Health Policy class. Inspired by Nestle's work and a discussion in a public policy class about the failure of Mayor Bloomberg's soda bill in New York City, I chose to examine the ethics of telling people what they are allowed to eat and telling industry what it is allowed to produce. Now I am using my Independent Study Project as an opportunity to further explore this topic by doing more research and putting it in a global perspective.

The following paper is a product of the experiences I have had in the past three years that have helped me discover my interest in nutrition, politics, and healthy living.

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Introduction

In 2004, the World Health Organization (WHO) announced that the worldwide prevalence of obesity has surpassed that of hunger (Miller & Harkins, 2010). This shift is significant to modern public health, as it represents the double burden of disease (malnutrition and undernutrition)¹ that is affecting the world in the 21st century. Obesity affects 600 million adults worldwide, and over 42 million children are at least overweight, if not obese (WHO, 2015). These rates have doubled since the 1980s, largely due to the globalization and development that has taken place over this time period (WHO, 2015). Globalization and development have introduced new products, practices, and markets in a short period of time that in many ways have improved quality of life, but have also altered dietary consumption and physical activity levels.

Although economic development has indeed been beneficial in the developing world, it has arguably been more beneficial to the Western companies that have entered its markets. These companies, especially members of the food industry, have had great success in these new markets, but often at the expense of the consumers. Although Western food products are often cheaper and have longer shelf lives, they are generally higher in fat, sugar, salt, and other unhealthy products that make them more palatable, longer lasting, and obesogenic.

Unlike with other epidemics, we know what causes obesity and how it can be prevented. Many educational efforts have been made to raise awareness about healthy living, but they have proved to be inadequate. If people are given the information they need to live healthy lifestyles but fail to use it, should a more involved method be adopted? In order to combat the obesity

¹ Undernutrition is chronic hunger or starvation that prevents an individual from having enough energy to sustain daily activities.

An individual who is malnourished does not consume the proper nutrients for healthy living or proper physiological development. Malnutrition can include undernutrition and overnutrition.

epidemic, it will be necessary to make the food and beverage industries change their products and marketing, something they are only going to do if consumers indicate they want a change or if the government mandates one. Countries that have a longer history of development and economic stability have begun to address the obesity epidemic by proposing and implementing policies that regulate the presence of obesogenic ingredients in food. This has called into question what role (if any) the government should play when it comes to controlling food production and consumption. Many people feel that any attempt from the government to control their diets is a paternalistic violation of their freedoms. Does the government have the right to regulate the way people eat and what the food industry can produce in order to keep the population healthy?

This study will begin by outlining the history and current status of the obesity epidemic and then will delve deeper into globalization and its effects on diet in developing countries. It will also explain the motives and tactics of the food industry and the different regulations that apply to them around the world. Ethics will be an overarching theme of the paper. This study is concerned with exploring the ethical situation from all perspectives and takes into account the interests of businesses, individuals, and government when exploring potential solutions to the obesity epidemic.

Methodology

In order to answer these questions, the research utilized scholarly articles and interviews with knowledgeable experts to understand the intricacies of the issue. In many cases, experts suggested further reading and even asked their own questions, which opened up possible directions for research and helped define the final themes of the paper.

Scholarly articles that were not suggested by experts were found using online databases. Topics of articles used include: the origins of the obesity epidemic, obesity's effects on health, food marketing, corporate operations, obesity in transitioning economies, and alcohol and tobacco regulation. The websites of relevant organizations (for example, the World Health Organization and Nestlé foods) were consulted for factsheets and summaries of data.

Interactive research was comprised of formal and informal interviews. Over fifteen potential individuals and organizations were contacted via email and phone for potential formal interviews. Potential interviewees were found independently or through the School for International Training in Nyon, Switzerland, either through lectures or suggestions from the academic advisors. All potential interviewees received an explanation of the assignment, the topic, and a list of questions that they would be asked (see Work Journal). It was explained that they would only have to answer the questions they felt comfortable answering and that they could remain anonymous if preferred. Interviewees gave verbal consent to having the interviews recorded and clarified at the conclusion whether or not they felt comfortable having the product of the interviews shared. The informal interview involved less preparation, but the impromptu interviewee was still given the same opportunities to consent to having their intellectual material used.

Origins and Effects of the Obesity Epidemic

In order to understand the questions surrounding the role the government should play in our diets, it is necessary to understand the origins of the obesity epidemic and what factors are driving it. Obesity, like other non-communicable diseases, challenges the traditional definition of epidemics. Many people think of transmissible and acute illnesses caused by viruses when they

think of epidemics, not chronic maladies with causes that are not purely biological. Obesity differs from other epidemics in that it has become largely a political issue that is closely tied to individual choice and industry influences. Compared to communicable diseases, there are many more choices all actors (individuals, government, industries, etc.) make that contribute to obesity (Kruseman, 2015). This complicates the response to the epidemic, as there are countless potential causes and factors that need to be addressed and controlled. Another way the obesity epidemic differs from others is found in the large commerciogenic influences on consumption (Richter, 2015). Unlike other diseases, there is an entire market devoted to making and selling products that cause obesity. This makes it difficult to find a universally beneficial solution to the problem, as anti-obesity advocates have to fight an already powerful industry that relies on obesogenic products and behaviors to continue thriving.

In the United States, per capita daily food consumption has increased by 200 calories since the 1970s and since the late 1990s at least 47% of all food consumption takes place outside of the home (Young & Nestle, 2002). This is partially due to the growing prevalence and marketing of packaged foods and the growing popularity and ease of eating in restaurants, particularly cheap and quick fast food establishments. The portion sizes of food are enlarging and it is now the norm for food sellers to put more than a serving size in a package to encourage people to eat more and to use the larger packages to grab the attention of customers (Young & Nestle, 2002). Countries that are developing as well as developed countries going through economic transition (such as post-Soviet Eastern European countries) saw similar increases in consumption later on due to globalization and development, which will be discussed more later.

Obesity is a disease that causes other diseases and as such, it has numerous adverse effects on human health that cost an estimated \$51 billion in medical costs in the United States

annually (Wolf & Colditz, 1998). Obesogenic products are common culprits of coronary heart disease as they cause the build up of plaque in the arteries, making it difficult for enough oxygenated blood to reach the heart (NHLBI, 2012). Similarly, people who consume sodium and fat rich diets are at risk for high blood pressure. Fatty tissues reduce the elasticity of vessels, which makes it harder for the heart to pump blood throughout the body and damages several vital organs (NHLBI, 2012). High sugar consumption can also cause type 2 diabetes, which can lead to heart disease, kidney disease, stroke, and blindness (NHLBI, 2012). These are only the main diseases caused by obesity and there are several more costly, chronic diseases and health risks associated with overconsumption (NHLBI, 2012).

Obesity's harmful effects are not just biological, as it has significant economic consequences as well. On an individual level, health complications associated with obesity can cause people to take days off work, decreasing their income (which is likely to already be low, due to the fact that poorer populations in the developed world tend to be at a higher risk for obesity) and overall productivity of the economic system (Wolf & Colditz, 1998). Initially these side effects only affect the obese individual and those closest to him or her, but when over 300 million obese people worldwide are using more medical resources and unable to work, the costs will add up and cause economic damage to even the healthiest of people, who will have to pay higher taxes to cover the higher medical costs associated with obesity (Lustig et al., 2012).

Efforts are being made to control and decrease the prevalence of global obesity, but competing forces make this difficult. Increasing economic liberalization is facilitating the availability and accessibility of unhealthy products that create large profits for the food industry, at the expense of individual health and the healthcare system.

Globalization and the Food Industry

The market influences obesity in several ways. The food industry has expanded since the 1970s, meaning there are more food producers that are introducing more products. Members of the food industry attempt to make their products tastier, more accessible, and cheaper in order to appeal to consumers and remain competitive (Anand & Gray, 2009). Unfortunately for consumers, these high-profit products usually come in the form of unhealthy food. Although the food industry is supplying consumers with more choice, a value vital to the spread of democratization and open economies, it is forcing consumers into an unhealthy environment in which almost every choice they make is an unhealthy one. Anand and Gray (2009) call this “inappropriate opportunity market failure”, meaning normal competitive processes that give consumers more choices are really just creating more opportunities for consumers to make harmful decisions. This is exacerbated by targeted marketing efforts at children and the poor and by price competition that uses increases in size to increase consumer gains per dollar (Young & Nestle, 2002). In fact, many food sellers incentivize larger portion sizes with terms like McDonald’s “Supersize” or 7-11’s “Double Gulp”, both of which allow consumers to upgrade to a larger portion for a small cost. Even companies that market their products as healthy alternatives, like Lean Cuisine, boast their large portion sizes in order to attract consumers (Young & Nestle, 2002). Economic liberalization efforts promote the idea of having a free market that provides choice and opportunities and, for the most part, operates separately from the government. But should the government, which serves to protect the people, have a right to intervene when the market is operating in ways and producing products that harm consumers?

Internationally, the food industry has undergone significant expansion in the past few decades. Food now makes up 11% of all global trade and has increased the number of products

available worldwide, which has had both positive and negative effects on nutrition, as it has lessened the burden of undernutrition, while increasing that of malnutrition (Chopra, Galbraith, & Darnton-Hill, 2002). In the United States alone, the food industry spends more than any other industry, over \$30 billion, on marketing to consumers and has successfully marketed American products abroad as well (Chopra & Darnton-Hill, 2004). In fact, 65% of Chinese consumers recognize the Coca-Cola brand and 42% recognize Pepsi (Chopra & Darnton-Hill, 2004).

In the developed world, the market is already crowded with competing companies, but abroad there is less competition. By expanding their operations to serve more customers, big food companies have been able to attract more consumers and keep their prices low. Because economic value trumps nutritional value for many consumers, this drives small food suppliers out of business, giving the large chains even more power (Witkowski, 2007). The expansion of the big food industry is not necessarily about spreading Western food, it is more about spreading Western brands. Many chain restaurants have altered their menus to appeal to local tastes, such as McDonald's serving "McVeggies" in India and KFC offering local vegetables in lieu of the traditional American mashed potatoes to appeal to Chinese tastes (Witkowski, 2007). This is especially useful when marketing to children, as they are not yet attached to their country's traditional cuisine and are more likely to try these alternatives (Witkowski, 2007).

The opinion of many people working to fight obesity in the face of economic development and liberalization is that the big food industry is more concerned with making profits than looking out for the nutrition, health, and well being of consumers (Stuckler & Nestle, 2012). "Big food" refers to a handful of major multinational corporations with significant market influence. Because these companies have so much power and are often parent corporations that

are associated with several different companies, there is actually less market competition than may appear (Stuckler & Nestle, 2012).

The big food companies are incentivized to produce unhealthy, processed foods because they are economically more viable. Processed food products with unhealthy ingredients are cheaper to produce and sell better because they are tastier. Healthier foods are more expensive to produce, expire more quickly, and do not always sell well as they can be less tasty, therefore making them less lucrative (Heeb, 2015). Consumers in wealthier countries can afford healthier products and have therefore created a demand for them that the market answers. Unfortunately, this demand is less present in developing countries (typically where undernutrition is still widespread or was until recently), and thus companies do not have the incentive to market those alternatives there (Witkowski, 2007).

The presence of big food sellers alters the local economy that they enter. Many areas that were once operated under self-sustaining “farm to table” techniques now have the option to purchase food that was not normally available and lasts longer (Rayner et al., 2007). After World War II, Pacific island nations underwent development and began receiving food imports from abroad. These people, who were once self-sufficient, soon became reliant on these imports and were subject to their effects (Rayner et al. 2007). This increase in food supply caused a subsequent increase in consumption. Although this addresses the threat of undernutrition, it was damaging to overall nutrition as it increased the consumption of products like red meat, which can be unhealthy when consumed in excess amounts (Rayner et al., 2007).

Globalization affects not only diets, but lifestyles as well. As explained earlier, obesity decreases productivity by causing health problems and conditions that might make individuals unable to work effectively. This is aggravated by the fact that developing countries are also the

site of rapid industrialization, both as a result of development and because industrialization is now vital to keeping up with the rest of the world. Industrialization, while beneficial in a myriad of ways, reduces the need that once existed for labor-intensive jobs, like farming, and promotes urbanization, which can have obesogenic effects as more and more people spend the majority of the day sitting at desks (Witkowski, 2007). Urban living and Westernization encourage a sedentary lifestyle by popularizing activities like watching television, reducing the amount of outdoor space available for physical activity, and by requiring the use of more cars (Witkowski, 2007). Urban sprawl and horizontal urban growth mean fewer people can conveniently walk or cycle to work, and even if they can, the high number of cars on the road might make it unsafe for them to do so (Witkowski, 2007). The urban poor often have inadequate housing and therefore might not have access to a proper kitchen. This forces them to rely on pre-prepared and packaged foods, instead of more nutritious home cooked meals (Witkowski, 2007). Additionally, obesity causes a cycle that can negatively affect a person mentally and socially (Figure 1).

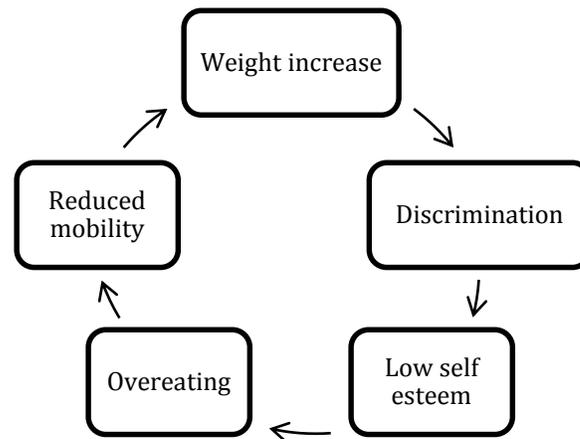


Figure 1 illustrates the chain reaction the gaining weight to the point of obesity can initiate. Not only does obesity create a domino effect, but it is also part of a cycle that can get worse as it continues. (Copied from a display at Nestlé's Alimenterium in Vevey, Switzerland)

Politics and economics are closely linked and political factors can have direct and indirect effects on nutrition and general public health. In Eastern Europe, the 20th century rise and fall of the Soviet communist regime and subsequent market changes had its effects on public health. In the years following World War II, lifespan increased under the Communist regime in countries like Poland due to the government devoting more attention to public health (Neroth, 2005). Despite these initial gains, nutrition was on the decline again by the 1970s. After WWII, products that were once in low supply, like animal fats and butter, were more widely available and consumed at unhealthy levels (Neroth, 2005). This availability and reliance on unhealthy products was exacerbated by Communist tendencies to put more scientific resources towards weapon building than nutrition and other health related research (Neroth, 2005).

After the fall of the Soviet Union in 1989, previously Communist countries transitioned to a more democratic economic system (Neroth, 2005). Today, Poland remains one of the most economically successful and healthiest of these countries due to a variety of interrelated factors (Ulijaszek & Koziel, 2007). Some cite the stability of Poland's democracy as the main cause, as it has allowed its political processes and economic markets to be more health and human-oriented (Neroth, 2005). Politically, democratization allows for increased lobbying, facilitated discussion, and public participation. These characteristics have been particularly useful for anti-smoking campaigns, (which can be very similar to healthy eating campaigns) as they allow for open debate and popular decision-making. Economically, Poland now hosts more international food companies. A large portion of this paper discusses how this can be problematic for some countries, but it is important to note that it can have beneficial outcomes. For instance, the "Tesco effect", named after an international grocery store chain originating in the United Kingdom, refers to the increasing number of Western-style supermarkets that allow consumers to

purchase produce year-round, regardless of climate or growing season (Neroth, 2005). This is particularly useful in countries with climates similar to Poland's, where food might not grow as easily, but is less necessary in areas that already have strong agricultural practices, as many developing nations do.

While Poland is an example of how transition has been beneficial to nutrition and health, former Communist countries still face challenges many of their neighbors in Western Europe do not. Some countries (such as Switzerland, France, and Denmark) have implemented regulations on junk food and drinks that force the food industry to comply and alter the manufacturing of its products. In countries that do not have these regulations, food manufacturers do not alter their recipes because they do not want to decrease their profits by using healthier ingredients that are more expensive (Heeb, 2015). Thus, even if some governments implement regulations, the food industry can maintain its successes elsewhere.

Tobacco, Alcohol, and Sugar

All around the world, there has been debate about whether or not obesogenic products should be regulated and how to go about doing so. Looking at current and historical regulations placed on tobacco and alcohol consumption can help build the framework for regulating obesogenic ingredients. This section will compare one obesogenic product, sugar, to alcohol and tobacco in order to better understand its consumption and the challenges facing its regulation.

Aside from adding on excess calories, sugar consumption catalyzes the biological processes that lead to diabetes, hypertension, and various types of stress on the liver (Lustig, Schmidt, & Brandis, 2012). Obesity resulting from overconsumption of sugar adds coronary heart disease, certain cancers, and musculo-skeletal disorders to this list of ailments (Wolf &

Colditz, 1998). This level of biological toxicity, which is comparable to the known effects of alcohol and tobacco, makes sugar a dangerous substance.

Although not quite as dramatic or visibly harmful, sugar poses similar risks as alcohol and tobacco when it comes to abuse and addiction. Sugar encourages the activation of ghrelin, a hormone that tells the brain the body needs energy and therefore encourages a person to eat more (Lustig et al., 2012). To make matters worse, sugar also suppresses signals from the hormone leptin, making it difficult for the brain to know when the body is satisfied and has enough energy, and therefore should stop eating (Lustig et al.). Thus, although sugar addiction is not as noticeable as alcoholism or tobacco addictions, the substance itself makes the body want more, making it harder to reduce consumption.

Alcohol and smoking pose immediate risks even to those who do not consume it, particularly through behaviors like drunk driving and secondhand smoke. Sugar does not pose such immediate risk to the health and safety of others, but the rising prevalence of obesity will mean higher health care costs down the line. One study estimates the total yearly cost of medical care necessary to treat diseases associated with obesity (such as diabetes, coronary heart disease, and osteoarthritis) to be at least \$51 billion (Wolf & Colditz, 1998). Most OECD countries spend 1-3% of their healthcare expenditures on obesity related conditions, but that number can be as high as 10%, as it is in the United States (OECD, 2014). One study found that obesity is similar to smoking in that both cause people to have to seek more medical care and take days off of work due to their side effects (Wolf & Colditz, 1998). Initially these side effects only affect the obese individual and those closest to him or her, but when over a third of the population is using more medical resources and unable to work, the costs will add up and cause economic damage to even the healthiest of people. Like alcohol or tobacco use, the consumption of obesogenic

products is the individual's choice, but it eventually has consequences for everybody (Kruseman, 2015).

Aside from health risks, there are also social implications surrounding alcohol and tobacco use and sugar consumption. One reason people consume alcohol is for social reasons and many people are able to use it responsibly in this manner, making it a more acceptable substance socially (Miller & Harkins, 2010). Today, there is a stigma that surrounds smoking and tobacco use that prevents it from being as socially accepted as it once was. Similarly, there is some evidence of a stigma against obesity, as it does not typically fall under the definition of being aesthetically pleasing (Figure 1; Nestlé, 2015). Thus, like with cigarette smoking, there are non-health related motivations for people to reduce their obesogenic behaviors. Parties interested in fighting obesity can use these motivations in order to reach out to more people, as some anti-smoking campaigns have done.

There have been attempts to completely ban tobacco and alcohol, but these have been unsuccessful due to industry influence and popular demand for the products. Alcohol is regulated as a compromise between the government (which tries to protect the people) and society (which wants the freedom to consume what it wants) (Lustig et al., 2012). An alcohol ban in the United States in the early twentieth century was effective in reducing alcohol production and consumption, but more determined Americans used the black market to produce and sell alcohol, and eventually anti-Prohibition interest groups were able to repeal it. Much like alcohol, people enjoy having sugar in their lives and it is too popular and too frequently consumed to completely ban. Regulating sugary food can be even more problematic than regulating alcohol and tobacco because food is an essential item and latter two are not.

Full prohibition of added sugar is not the solution, nor would it even be feasible given the power of food and beverage industries. Establishing effective ways of regulating consumption and reducing the availability of sugary products, on the other hand, is possible and is the key to solving this issue. One of the main arguments all three industries make when defending their products is that they are not forcing consumers to drink, smoke, or eat unhealthily. They provide the products and the public chooses to consume them (Miller & Harkins, 2010). To address this argument, governments and anti-obesity campaigns have explored solutions that discourage consumers from making these decisions. Proposals include taxing a few extra cents per ounce of soda, creating stricter restrictions for food sellers, and changing food safety policies. It might even take a combination of all three seeing that although a one-cent per ounce tax could increase tax revenue by as much as \$12 billion, studies suggest it would not significantly reduce consumption in the general population (Lustig et al., 2012).

Existing and Proposed Regulations

Governments in the developed world and in emerging markets have tried to reduce the consumption of obesogenic products by proposing, and in some cases passing, legislation that limits or taxes unhealthy foods. So far, no universally applicable solution has been found and those that have been passed have produced new problems and concerns. Aside from challenges from businesses and individuals, the aftermath of passing such legislation is one of the biggest challenges, as it often upsets the system and has unforeseen consequences (Kruseman, 2015).

In Switzerland, a 2008 law passed that limited the amount of trans fats permitted in processed foods to two grams of trans fat per every 100 grams of vegetable oil or fat (Leybold-Johnson, 2008). According to Kruseman (2015), there was very little resistance to this legislation

from the public, as there is a substantial amount of evidence supporting trans fat's obesogenic affects and the varied consequences of obesity. Pushback from the food industry was not as strong as one might expect, largely because food manufacturers were able to replace trans fats with other fats and oils that can serve the same purpose as trans fats in recipes (Kruseman, 2015). In France, a proposed consumer tax on sugary drinks was passed, but has had little effect as manufacturers can afford to lower their prices a few cents in order to offset the cost of the tax on the consumer (Kruseman, 2015).

This kind of regulation on ingredients has so far not been possible in the United States, where an emphasis on personal freedom of choice has discouraged limiting or banning the amount or type of food people can consume. A major attempt to curb soda consumption took place in New York City in 2013 when Mayor Michael Bloomberg proposed a ban on selling sugary drinks larger than sixteen ounces. The proposal was shut down by the New York Supreme Court, which ruled the law unfair and arbitrary. Only some food vendors (primarily movie theaters, stadiums, street vendors) would have to comply and be subjected to monitoring by the city; the regulation would not affect state-monitored convenience stores, making the plan lack consistency (Sifferlin, 2013). The Court also found the classification of sugary drinks problematic, as it excluded diet sodas and drinks like frappuccinos, which are extremely high in empty calories from sugar yet are exempt because they are more than 50% milk (Sifferlin, 2013). The proposal gained a lot of attention due to the intense public backlash against the arbitrary and paternalistic measures Mayor Bloomberg was accused of, even if they came with good intentions. A large part of this backlash was the framing of the proposal as a ban instead of a regulation. People do not respond well to having something taken away from them and in this case many New Yorkers saw what was really a regulation as the government taking away

something that has always been available to them without question. Because Bloomberg's idea was to simply regulate the size of the drinks available for purchase, it might have been more successful (or at least faced less opposition) if it did not gain recognition as "Bloomberg's soda ban".

The city of San Francisco in California came close to implementing a two-cent per ounce tax on sugary drinks called Proposition E in November of 2014 (Knickmeyer, 2014). Revenue acquired through the tax would have gone towards programs that promote health through proper nutrition and activity. Big beverage companies and small food vendor owners were against the tax, which would require the food distributors (grocery stores, markets, vendors, etc.) themselves to pay the extra two cents (Knickmeyer, 2014). Opposition from the beverage industry and food distributors is significant because of its strength in both numbers and dollars against the proposed law. The American Beverage Association (ABA) contributed over \$1 million to combat this and a similar tax in nearby Berkeley, California that ended up being successful (Knickmeyer, 2014). Those who challenged the tax mainly argued that it would hit poor communities the hardest, as people without a college education are twice as likely to drink soda and people living below the poverty line rely on cheap sugary drinks for 9% of their daily calories (Knickmeyer, 2014). They also argued that because San Francisco is already a fairly expensive city, the losses experienced by local businesses would widen the gap between the rich and poor. Supporters of the tax argued that it is unfair to allow the beverage industry to continue to make such harmful products so available to the population, especially to poorer people.

Berkeley and San Francisco are two cities with similar personalities, as both are fairly liberal and have health-conscious residents (Knight, 2014). So why did the tax pass in Berkeley but not San Francisco? One reason is the nature of the proposed tax. In San Francisco, the

revenue would have gone toward specific programs that promote nutrition and activity, whereas the Berkeley tax just goes to the city's general fund (Knight, 2014). This difference means that a super-majority of two-thirds was needed in the San Francisco votes, and only a simple-majority of one-half was needed in Berkeley (Knight, 2014). 55% of San Franciscans voted for the tax, but this was not enough (Knight, 2014). Political minutiae aside, many more Berkeley residents, 75%, were in favor of the tax – why? (Knight, 2014). Many experts believe advocates of the tax in San Francisco did not do enough to reach out to the low-income communities they were trying to protect, and organizations like the ABA were able to use their funds to get these populations on their side (Knight, 2014). Supporters of Proposition E were expecting more financial support from anti-obesity advocates, like Mayor Bloomberg, but it did not come through (Knight, 2014). The campaign manager believed the lack of funding was one of the main obstacles preventing the passage of Proposition E and that political advocates for health need to be getting the same kind of donations health research and education groups do (Knight, 2014). This final point further supports the argument that education on the topic is not enough and that there needs to be some kind of political action.

This is where the two questions regarding the ethics of sugary drinks meet. Is it ethical for the government to limit choices and hurt businesses in order to improve the lives of Americans? Is it ethical to allow those businesses to continuously target at-risk populations that rely on their products?

Although it is too early to tell whether or not the soda tax in Berkeley (passed in November 2014) will have significant effects on obesity and health, evidence from the French tax and the failure of other regulations suggests that the government will have to take on a stronger role in the fight against obesity and not surrender to what some might label corporate

capture.² The cases of Poland and Switzerland serve as examples of how strong democracies are able to combat and overcome obesogenic influences, due to strong public support of health over industry.

Ethics

The main purpose of this paper is to examine the ethics that surround telling people what they can and cannot eat, and telling private corporations what they can and cannot produce, as limiting individuals and industry goes against many of the ideals economic liberalization seeks to promote. The overall question is whether or not governments (or international governing bodies) should have the authority to regulate consumption and production in order to protect consumer health and reduce healthcare costs. Keeping the information already discussed in mind, the remainder of this paper will be an analysis of the perspectives of the government, industries, and consumers when it comes to finding ways to battle the obesity epidemic. Although the three levels are divided into separate sections, they share many concerns and each section contains arguments that cross over to another, highlighting the interrelated nature of the problem.

Government Level

When does looking out for the health of citizens turn into government paternalism? John Stuart Mill, an English philosopher, theorized that liberty in a nation means the government allows individuals free will except in cases where they are harming others (Gostin & Gostin, 2009). In other public health crises, such as an outbreak of an infectious disease, the people look

² Corporate capture occurs when a special interest organization, like the food industry, is able to control and influence policy through media and political support, usually by using its large financial resources.

to the government to take action and are usually compliant with whatever actions the government deems necessary to control the risk. People allow this because they are rational actors, and rational actors by definition only make choices that will benefit them. Dan Ariely, an author and professor of psychology, argues that we are not as rational as we might think. He believes humans are “predictably irrational”, meaning we repeatedly act in ways that do not benefit us because we get focused on the small benefits we get from certain decisions, usually choosing short-term rewards over long-term benefits (Ariely, 2010). Put another way and applied to the topic of obesity, most individuals in liberalized economies do not feel that the government needs to protect them by regulating obesogenic products because they highly value freedom of choice and liberty to act as they please and have trouble seeing how a portion of the population being obese will affect the entire population in the future. This is why, despite numerous campaigns, education on healthy eating and physical activity has not been enough. Were people truly rational actors, the knowledge that junk food causes obesity and its associated conditions would be enough to reduce consumption, but instead the government needs to propose policy interventions to address the problem.

As Lustig et al. (2012) pointed out, people who do not drink sugary beverages are not directly harmed by those who do, but they will end up paying higher taxes to cover the medical costs associated with obesity. When effects of public health action (or inaction) are put into economic terms, it can help put things in perspective but also risks making it look like policy makers put money over human well being. For instance, the estimated \$12 billion gained in revenue from a one-cent tax per ounce of soda could go toward various useful public programs. However, some might see this as overbearing if the government first implements a new tax and then uses the money to further control the lives of citizens.

Taxes on obesogenic products have potential to discourage obesity-causing purchasing behaviors, but perhaps the problem needs to be addressed closer to its source. In many areas, particularly in countries currently undergoing economic development, the urban wealthy are the most at-risk for obesity (Nestlé, 2015). This is at least partially due to Western food products being a status symbol and something people buy to represent and mirror their own economic success (Richter, 2015). No matter the region or reasoning, small taxes on unhealthy foods will do little to stop people from buying them. As long as tasty, inexpensive products are available, people will buy them (especially poorer people who rely on products with high calorie content to get more energy per dollar), making it necessary to control what is put on the shelves and not just how easy it is to buy it. In response to policy models like the soda tax in California, Kruseman (2015) does not think it is fair to subject small businesses to a tax that is meant to alter the behaviors of individuals and large corporations.

As previously described, certain governments at the local and national level have created policies to combat obesity. Although it is too early to know how successful the passed policies will be, it is likely that they will not be enough to truly reverse the epidemic that is occurring globally. Instead, it will take global action to address a global issue. The World Health Organization (WHO) and the United Nations' Food and Agriculture Organization (FAO) collaborated to design The Codex Alimentarius, an international set of standards for food quality and safety (Chopra et al, 2002). 185 countries, the EU, and 229 international and non-governmental organizations are members or observers of these guidelines, giving them significant international influence. Currently, the Codex is mainly concerned with ensuring food safety to decrease the risk of toxic harms to health, although it has the potential to oversee areas like international food labeling that could make nutrition more transparent (Chopra et al., 2002).

Utilizing the Codex Alimentarius or other similar international agreements/plans could help fight obesity by setting standards at an international level that incorporate both governments and relevant organizations.

Industry Level

The main argument the food industry uses when it faces potential regulation of its obesogenic products is that nobody is forcing consumers to purchase unhealthy products. This argument is one way the industry attempts to influence the discussion of the obesity issue and therefore change the response, according to some consumer rights activists (Richter, 2015). Whether or not this argument is used purely to deflect blame, it is an interesting one and calls into question how much personal freedom really should be allowed before it harms individuals and entire systems.

One way to look at regulation is by comparing the (lack of) regulation of junk food to drug regulation. Before being put on the market, drugs are tested to ensure their safety and evaluated for several years after that, with the potential of being discontinued if found to be unsafe (Richter, 2015). As previously mentioned, agreements like the Codex Alimentarius work to ensure the continued safety of food for consumption, but could follow the model of pharmaceutical regulations by assessing the nutritive value of foods and following them after their release on the market. The pharmaceutical industry is one of the most heavily regulated because it is so directly linked to health and has the potential to seriously harm people (Richter, 2015). So far, there is no major effort to regulate the food products according to nutrition, suggesting more needs to be done to make people understand how detrimental poor nutrition can be to health. Doing so would certainly be met with protest from big food companies, who have

the overall duty of satisfying their shareholders by making the largest profits possible, even if some people in management want to change their operations and make their products healthier (Stuckler & Nestle, 2012).

Individual/Consumer Level

The food industry would not be the only one to protest stricter regulations on the types of products put on the market. Consumers would also likely have a problem with being told what they can and cannot eat and see this as an act of government paternalism.

Many critics of Bloomberg's regulation argue that prohibiting the sale of drinks larger than sixteen ounces will not be effective because nothing is stopping people from buying two sixteen ounce sodas, which is, in essence, the same as buying a soda that is thirty-two ounces (Sifferlin, 2013). This makes sense, but there is reason to believe that many people only opt for the larger drinks because they are available, not because they actually want them. In fact, several studies have found that being offered more makes people want more. In one study, a hotel put a bowl of M&Ms at the front desk and offered different size serving cups on different days. When a tablespoon sized serving cup was offered, most guests were satisfied with just one serving. When a quarter-cup sized serving cup was offered, guests still filled the cup, which was four times as big as the tablespoon (Coates, 2012). This suggests that people desire to have the maximum of whatever is available, regardless of how much they really want or need. People are likely to choose the default option because it does not require any reflective thinking (Thaler & Sunstein, 2009). If thirty-two ounce sodas are available, people might choose them just because they are there. But if sixteen ounces is the largest option, there is a good chance it will be

satisfying enough and the consumer will not be left wishing he or she had consumed an extra sixteen ounces (Kruseman, 2015).

By banning sugary drinks larger than sixteen ounces, New York City would have made the easier choice (to buy one sixteen ounce drink instead of two sixteen ounce drinks in order to have more) the healthier choice. The sugary drink is still full of empty calories and contributes nothing to the consumer's health, but limiting consumption is a step in the right direction. In the United States, the Center for Science in the Public Interest (CSPI) submitted a petition to the Food and Drug Administration (FDA) advocating the removal of added sugars from the FDA's list of ingredients that are generally regarded as safe, or GRAS (CSPI, 2013). Because added sugar is a GRAS ingredient, there is no limit to how much of it there can be in a food product. CSPI argues that the FDA should set limits on the amount of sugar food manufacturers can add to their products, thereby making a lower amount of sugar the default option (CSPI, 2013). Much like the people who were satisfied with only a tablespoon of M&Ms from the front desk of the hotel, most consumers probably would not miss the added sugar. In addition to setting a limit on the amount of added sugar in food products, the CSPI also proposes to alter nutrition information labels so that they distinguish between the amount of natural sugar and the amount added sugar in a product so that consumers can be better informed about their food choices (CSPI, 2013). Although there might be some protest from consumers, the limit of trans fat in Switzerland was met with little protest from the public because of the indisputable scientific evidence in its favor. Thus, even if the product recipes are slightly altered, consumers should still be satisfied as long as they are still supplied with a plethora of choices.

Conclusion

When it comes to finding solutions to the obesity epidemic, there will be no simple answer. Governments can attempt to enact policy that will protect their citizens, but they will have to fight industry influence and a strong-willed public. Despite this challenge, it appears that policy solutions are the most viable and, given the costs obesity has for individuals and for healthcare systems, they will be most beneficial in the long-term.

Policies like the trans fat limit in Switzerland and the soda tax in Berkeley are intended to alleviate the burden of obesity at the national or local level, but international action will have to occur to significantly reduce the prevalence of obesity worldwide. Because much of the obesity epidemic is spurred by globalization and stimulated by international corporations, it will take an international solution to adequately reverse the eating habits that are currently in use. Many consumers are able to pay a few extra cents for obesogenic products and many companies are willing to adjust their prices to accommodate consumer taxes, making this solution one that is not entirely successful. Instead of trying to make products more difficult to purchase, it might be more viable to regulate the ingredients that go into them. In Switzerland, there was little opposition to the trans fat limit from consumers and it seems that nobody really misses the extra trans fats. This is partially because manufacturers have replaced trans fats with other similar products, but this still supports the notion of a default option. Reducing servings or the amount of a certain ingredient will likely go unnoticed by many consumers (as evidenced by the M&M experiment) and allow them the same amount of choices. Therefore, it should be more deeply explored as a way to combat obesity. International agreements like the Code Alimentarius should be utilized in this so that anti-obesity efforts are not restricted to just countries or cities.

As for ethical questions, they still exist. Implementing policies that regulate business operations will be controversial, but evidence on the immediate and long-term costs of obesity

suggests that it is more harmful to allow current practices to continue. As noted, any new policy will create new challenges, both expected and unexpected. For example, one concern voiced by some is that such regulations will increase prices, thus making it harder for poorer populations to access enough food. Such concerns will need to be further evaluated in order to determine their actual risk and possible solutions. It should be noted that a limitation of this study was, despite attempts, the lack of interactive research with a representative from the food industry. Having this kind of information would help determine what exactly the concerns of the industry are beyond losing profits.

This paper has examined the how economic liberalization and globalization have affected obesity and influenced consumption habits both in long-developed countries and ones that have just recently experienced the effects of economic development. Because many of the policies addressing this issue have only recently been passed, future research can evaluate their success to determine what are the most viable models and whether or not they can be applied globally.

Obesity is unlike other epidemics because it is man-made and influenced by a myriad of choices consumers, industries, and governments make. Although the large number of choices strength of the opposition makes it daunting to address, a solution to the obesity epidemic is possible and can have numerous benefits for human health and the stability of the health care system.

Abbreviation List

ABA – American Beverage Association

CSPI – Center for Science in the Public Interest

FAO – Food and Agriculture Organization (of the United Nations)

FDA – (US) Food and Drug Administration

GRAS – Generally Regarded as Safe

WHO – World Health Organization

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