

BLUE ZONES:

FOR PROFIT OR FOR THE PEOPLE

SPRING QUARTER 2020

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SCOUTING THE KEY TO LONGEVITY

How have these regions
impacted the world?

A CRITICAL APPROACH TO THE DIET INDUSTRY

The secrets behind a multi-
billion dollar endeavor

PROBLEMATIC OR POTENTIAL?

Analyze the effect of Blue
Zones Projects

ANALYZING IDEALISM

For our final project, we wanted to study Blue Zones and whether or not they are a product of the for-profit food industry. In a world of increasing mortality and morbidity - primarily from noncommunicable diseases - Blue Zones offer secrets to success in health and longevity. Blue Zones, defined as five geographical regions harboring the highest number of centenarians and some of the healthiest populations in the world all practice similar techniques and behaviors that are likely the reason for their success. The researchers behind Blue Zones are trying to bring these aspects into American communities via Blue Zone Projects. However, the food industry has been able to use fad diets and weight loss programs to make a profit off of obesity. We wanted to know if Blue Zones are just another way for the food industry to continue to make a profit. In the following articles, we each wrote a main article that can help bring answers to our questions.

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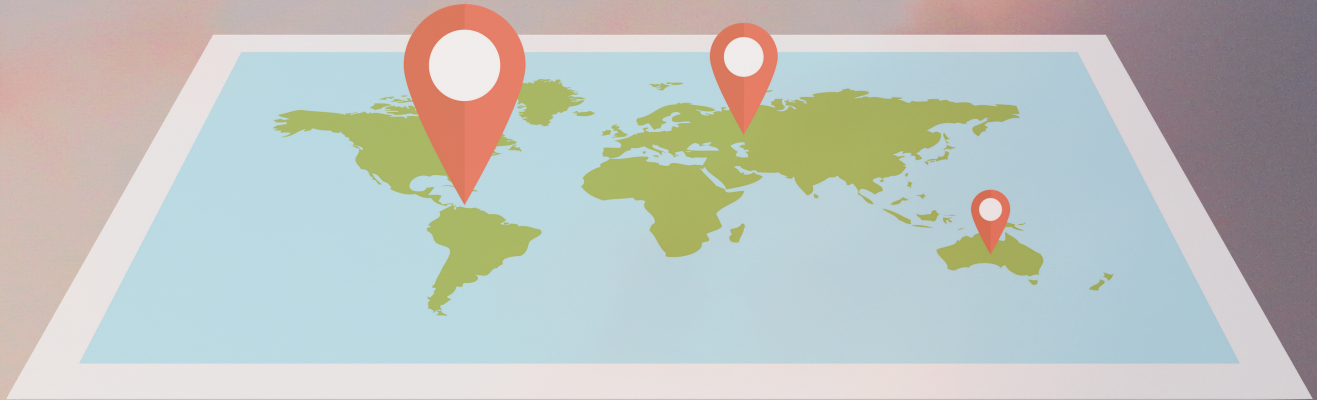
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A Brief Note on Blue Zones



In this next section, you will explore the concept of Blue Zones, provided with information on the fascinating communities and their respective qualities. However, it is crucial to take into account the fairly recent conception of this idea. The idea of a "Blue Zone", founded in 2004, has yet to have been adequately analyzed for validity in the biological claims that support them. The inhabitants of the Blue Zones have also not sought this newfound fame, instead it was bestowed upon them given the commercialization of their homes and their seemingly idealistic lives. You will first be presented the information in the way that Blue Zone Project founder, Dan Buettner, has described it before being provided a more analytic approach. So far as objectivity, these claims cannot be deemed absolute, and from this section, we hope that with our guidance, you may form your own understanding and outlook on Blue Zones.

WHAT ARE BLUE ZONES?

Exploring the Key to Longevity

By Sarah Snyder

We have all heard tales of a Fountain of Youth - ourselves wishing for long, fulfilling lives and we have all watched countless commercials marketing “miracle” pills, promising to promote health. While everyone seems to be doing (or taking) whatever they can to extend their lives, Blue Zones may offer an alluring alternative. So what is a Blue Zone? A Blue Zone is one of five specific geographical areas of which the community as a whole lives significantly longer, more functional lives than the rest of the global population. While the average lifespan of an American is 77.8 years, most Blue Zone inhabitants live 100+ years. The designated Blue Zones include Ikaria, Greece; Sardinia, Italy; the Nicoya Peninsula, Costa Rica; Okinawa, Japan, and Loma Linda, California (Buettner & Skemp, 2016). Dubbed “Blue Zones” as founder and National Geographic explorer Dan Buettner meticulously studied longevity in global populations and circled these notable regions on a map in blue, these populations account for the highest number of centenarians - people living above the age of 100 - than anywhere else in the world, holding roughly ten times the rate of centenarians than the United States.

Sardinia, Italy



Okinawa, Japan



Ikaria, Greece



And while genes do matter, recent studies have shown that genetics account for only 20-30% for longevity, indicating that the diet and lifestyle of Blue Zones inhabitants are the more prominent factors (Why People in “Blue Zones” Live Longer Than the Rest of the World, n.d.). It should be noted that most of these populations reside in mountainous and island regions, often physically or socially separated from others, and harbor traditional lifestyles. Well, the question burns: if there is no special elixir to long lives, then what makes these communities so successful, and what can we learn from them?

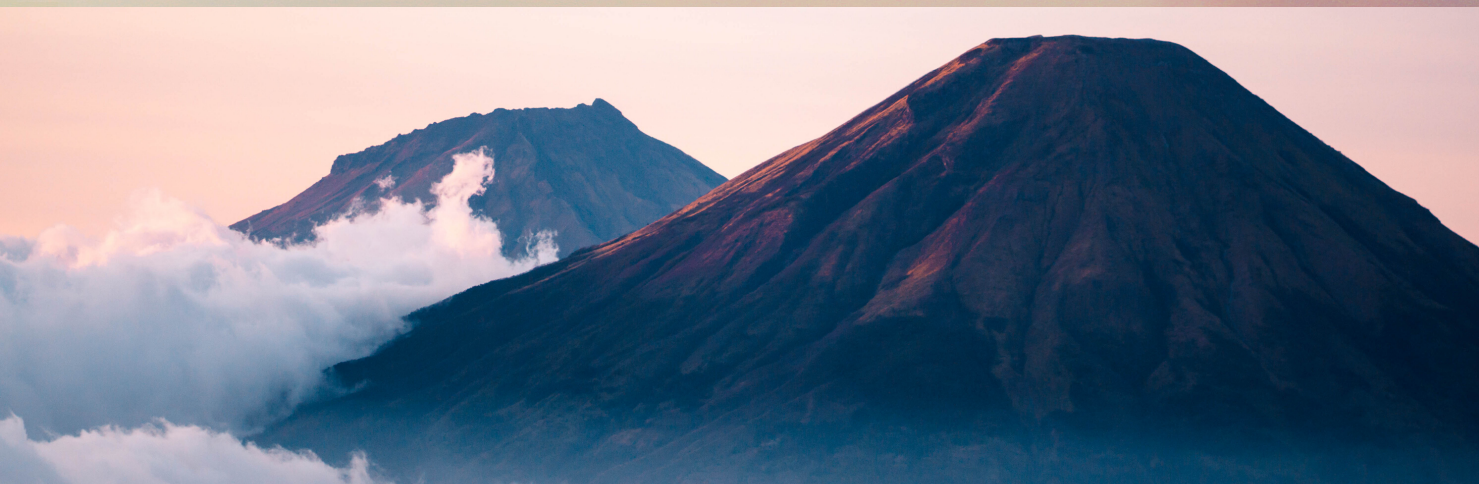
"The Power 9"

To begin, the communities share nine commonalities (with some deviation between groups), “The Power 9” as it is often referred to.

Starting with number one: *“Move Naturally”*. Members of the Blue Zones don’t belong to gyms, run marathons, or meticulously spend hours planning their workouts. Instead of focusing on intentional exercise, their movement is built into their daily lives, such as physical labor - often farming, herding, or construction - and frequent walking. As previously stated, many of these Blue Zones lie in mountainous terrains and members spend hours each day walking (or climbing, rather) around their community. In fact, Blue Zones inhabitants spend nearly 90% of their lives within a five-mile radius of their homes (Buettner & Skemp, 2016). Their communities are built in a way to make movement accessible.

The second is *“Purpose”*. Blue Zones communities all place an emphasis on having a life’s goal: a reason to wake up in the morning. This alone has been thought to increase psychological well-being and appreciating one’s worth. In Okinawa, this term is called “Ikigai”; in Nicoya, “Plan de Vida” (“Power 9®,” 2016).

Third, *“Downshift”*. This refers to the shedding of stress. It comes as no surprise that stress can lead to a slew of health issues - both acute and chronic -, so instead of harboring these feelings, each community has a ritual to release their stress: the Adventists in Loma Linda pray; Okinawans practice Tai Chi; the Sardinians indulge in happy hour daily. (Mishra, 2009).



The topic of indulgence leads us to the next point: “80% Rule”. This is a type of calorie control based on the principle of eating until 80% - not 100% - full. Rather than feeling stuffed, one should simply feel satiated. Given that more than ⅔ of American adults are overweight (which is a significant factor in chronic diseases like cardiovascular disease (CVD), diabetes, and cancer), the Blue Zone inhabitants offer a reasonable solution to weight management (Appel, 2008).

Fifth, comes “*Plant Slant*”. In Blue Zones, the bulk of the diet is plants. In fact, meat is consumed very rarely - on average less than five times per month and often only in celebrations or special occasions. Instead, a diet rich in beans, fruits, vegetables, and legumes is enjoyed. While a diet high in meat - read: saturated fats -, processed food, and added sugars (the “Western Diet”) is correlated with obesity, CVD, and related diseases, a largely plant-based diet and its consequent high nutrient intake has been linked with lower cholesterol, healthier body weight, and lower risks of CVD (Godfray et al., 2018).

Number six is “*Wine at 5*”. While alcohol is often demonized in the diet culture that consumes the United States, all of the Blue Zones inhabitants (hold the Adventists - who are viscerally against alcohol) enjoy moderate drinking. Though excessive drinking shows connections to depressive symptoms, organ damage, and decreased neural communication (among other issues), modest drinking (one to two glasses per day) has been shown to reduce stress and lower blood pressure and blood glucose. Red wine, the most commonly consumed drink among Blue Zone inhabitants, even contains antioxidants successful in slowing DNA damage and preventing some cancers - especially prostate and breast (Buettner & Skemp, 2016).

At number seven, comes “*Belonging*”. Instead of leading a rather individualistic lifestyle as in many Western countries, Blue Zone’s place a large emphasis on membership to a faith-based community (though denomination is not important). While of course it is not necessary to practice a religion to live a long life, the feeling of connectivity and security, even if just four times/month, encourages a sense of mental wellness and security. (Buettner, 2012).

Similar to belonging, the eighth factor, “*Loved Ones First*” places one’s family on the highest pedestal. Families are considered the utmost importance, often with many generations living together cohesively. From caring for aging parents to investing meaningful time in child rearing, Blue Zone familial traditions vary widely from the American standard. (“Power 9®,” 2016).

Finally, at number nine, is the “*Right Tribe*” idea. Blue Zone communities prioritize sociality as a way of shaping healthy habits to encourage both physical and mental well-being. Rather than harbor an individual, success-driven society, Blue Zones endorse tight social circles and community engagement (Mishra, 2009).

Where are the Blue Zones?

While the “Power 9” rules triumphantly through the communities, each of the Blue Zones has unique features that majorly impact their individual success. Ikaria, Greece: On this Greek Island, the inhabitants of Ikaria eat an entirely Mediterranean diet. Vegetables make up the bulk of this, with fruits, seafood, and an abundance of olive oil as supporting characters (Panagiotakos et al., 2011). It is worth noting that less than 4% of their diet includes sweets and when compared to the United States, The Ikarians show a 20% decrease in cancer incidence, a 50% decrease in CVD (Buettner & Skemp, 2016), and close to zero dementia. Maybe most appealing, regular afternoon naps and moderate alcohol consumption are enjoyed by the Ikarians.



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Sardinia, Italy: Nestled on a mountainous island in the Mediterranean sea, the Sardinian people are largely shepherds and farmers, indicating long bouts of physical activity daily. Similar in diet to the Ikarians, the Sardinians also display a mostly plant-based diet, with meat reserved for special occasions. However, what they lack in meat consumption, they certainly make up for in wine consumption - typically drinking two to three glasses of (red) wine daily (Fastame et al., 2018).

Okinawa, Japan: Okinawa is often crowned as the home of the longest-lived women and the “Land of the Immortals”. Eating a plant-based diet, consisting mostly of soy and sweet potatoes, inhabitants eat over $\frac{2}{3}$ lb of vegetables each day. A notable factor in this community is their reliance on “moais” or social networks placed at age five. These tightly bound connections are created to foster financial and emotional support and often last throughout their lifetimes. Similarly, the Okinawans engage in daily Tai-chi and gardening for stress relief (Mishra, 2009).

Nicoya, Costa Rica: While “Pura Vida” is the most commonly used phrase in reference to Costa Rica, try “Plan de Vida” next time. The Nicoyans are steadfast in their outlook on life’s purpose, vying each day for a positive attitude, active lifestyle, and daily goal. With a diet of little-to-no processed foods and plenty of antioxidant-rich tropical fruit, Nicoyans spend roughly 15% as much as Americans on healthcare, while being twice as likely to live to age 90 (Buettner, 2012).



Loma Linda, California: Loma Linda is home to a group of 7th-Day Adventists, a stringently-ruled Christian sect, living an average of 10 years longer than other Americans. As so, they follow a strict diet and rules set by the bible: no meat, alcohol, caffeine, or rich foods. A tightly-knit community with few incomers, the inhabitants also rely on weekly Sabbath, a day of relaxation and reflection (5 Blue Zones Where People Live the Longest, Healthiest Lives | Time, n.d.).

A Critical Analysis

Given the information currently known regarding Blue Zones, both the regions and the habits may appear as exemplars for the rest of the world. However, they may be more convoluted than they initially appear. To begin, “Blue Zones” are a relatively new concept. The research into longevity patterns - resulting in the coining of Blue Zones - occurred in 2004. In the words of the official Blue Zones website, “Dan Buettner teamed up with National Geographic and the world’s best longevity researchers to identify pockets around the world...” (History of Blue Zones,” n.d.). Evidently, these regions were not critically reviewed by the time of research publication. In just 16 years, Dan Buettner (and his “stellar team”) has become the single name connected to Blue Zones. Cited in just about every Blue Zone analysis written and subsequently, having written several books, and establishing the Blue Zones Projects, Dan Buettner has created his own empire. Subsequently, as more attention in the form of research has been given to Blue Zones, findings have been inconsistent. To begin, “longevity” is the most sought-after quality of the Blue Zones.

However, empirical age validation may be hard to attain. In Okinawa, birth records “Koseki” are based off of private family registries. As many of these registries are not accessible, the true age of an individual is often blurred, skewing the coveted centenarian prevalence (Poulain et al., 2013). Further, despite Okinawans being praised for their plant-based diet that seemingly leads to their longevity, Okinawans are becoming the fattest population in Japan, holding the highest mortality rate for men 55 years of age and under (Hays, 2009). So while the Okinawans do present a high relative number of centenarians, their current lifestyles are compromising their record, though this was willfully left out of Buettner’s analysis. In the spirit of wine consumption, Blue Zones cherish daily happy hours - claiming red wine’s beneficial impact on the heart and mental health. However, according to Dr. Kenneth Mukamal, an intern at Harvard Medical center, attributing wine consumption to lower rates of heart disease is solely observational and has yet to be tested in a clinical trial (Corliss, 2018).

Finally, in 1973, physician Alexander Leaf published a comprehensive account of his research in countries harboring long-lived people, including Pakistan, the former Soviet Union, and Ecuador, begging the question: why were none of these included in Dan Buettner's "Blue Zones"? Were they not so desirable in terms of attraction, or were they simply ignored? (Poulain et al., 2013).

Is There a Feasible Approach?

While Blue Zones are incredibly admirable in their features, many factors are unobtainable for people living outside of them. So let us investigate Los Angeles: are Blue Zones qualities feasible or ultimately impossible? Instead of mirroring the "Power 9 to a T", we should use it as an outline, aiming to adopt characteristics in ways that correspond to our lifestyles. Though we cannot expect to stay within five miles of our homes - certainly evident for anyone who has ever taken to the 405-, for everyone to drop their desk-jobs and create a society of farmers, ban consumption of meat and processed foods, or enforce a common sense of spirituality to roughly four million people, we do have the opportunity to adapt these principles. Instituting community-based policy and environmental change to foster healthier environments will encourage restorative lifestyles. The "Power 9" can ultimately be broken down into three subgroups: diet, movement, and social engagement. Though diet is probably the most decisive aspect of one's health, proper public education of such is lacking. Schools should emphasize nutrition classes, encouraging healthy eating habits and teaching the basis of nutrition. We cannot force companies to stop mass-producing products, but we should be capable of making informed decisions for ourselves. While Los Angeles is credited as one of the more progressive food-cities, nutritious food is largely unattainable. For anyone who has ever gone grocery shopping (especially at specialty stores like Whole Foods or Erewhon), it's no secret that a salad can ring up to \$20, while a packet of ramen costs less than one dollar. Regardless of food education, the monetary value of food is another issue. To combat this, Los Angeles should support community gardens, weekly farmer's markets, and price ceilings on food. The next factor, daily movement can be tricky. While Blue Zones are compact communities, Los Angeles is stricken by the growth of suburbs and is certainly not a pedestrian city. With jobs requiring commutes and hours of desk work each day, many rely on short gym sessions or exercise classes as their sole source of physical activity.

While gym memberships and classes can present exorbitant costs, many are unattainable, and rather than focus on short bursts of exercise for physical activity, society as a whole should instead encourage periodic movement built into the day. Instead of adding more car lanes, we should add bike lanes. With many bike-share options present throughout the city, biking is both efficient and active. The city should sponsor adding sidewalks to both neighborhoods and city centers, allowing people to walk (rather than drive) when possible to school, grocery stores, etc., and public parks could replace many parking garages, stimulating an outdoor, active community. Finally, the optimization of social environments may reap huge benefits on community members. We live in a rather individualistic, income-driven society. Instead of the cyclic work-home-sleep routine, communities should engage members through social gatherings. Through offering accessible events, inclusive places of worship, and endorsing healthy behaviors, communities have the opportunity to significantly increase a sense of belonging. Blue Zones, while not the magic, be-all end-all solution to longevity, offer empirical evidence to factors that correlate with increased lifespan, healthier peoples, and more intimate societies. The “Power 9” outlines specific features of the five Blue Zones communities that we do not need to imitate, but adapt and incorporate into our societies in an attempt to lead more fulfilling lives.

In Essence

The United States is plagued by several solvable issues. About 68% of American adults are overweight, and over ⅓ are clinically obese. Together, these and their subsequent diseases contribute to an estimated \$150-200 billion dollars each year to healthcare costs. And although so much attention is granted to this physical attribute alone, equally crucial to understand is the incidence of mental health issues that Americans suffer as a result from our societal structure and norms. Stemming from a predominantly economy-driven society with harsh gaps in wealth, more than ½ of all Americans will develop mental health disorders at any point in their lives, starkly contrasting from the extremely low depression rates found in Blue Zones. Together, these physical and mental disparities result in the division between longevity and functionality between Blue Zones and the United States.

Using a community-based approach, Los Angeles can benefit greatly from adapting and implementing Blue Zones techniques. While we cannot say following Blue Zones meticulously may be a concrete solution, the five regions truly show admirable characteristics and simply using these as an example may help our community prosper both physically and mentally.



Food Industry: the True Gold Digger

The Rise of Obesity

By: Michael Xu

Starting at a young age, you would be asked by physicians to step on a scale in order to measure your weight. This measurement may seem like just numbers, however, it is a large indicator of one's health. When your weight significantly exceeds the norm of your age and gender, then your health starts to decrease in quality. When thinking of serious diseases, obesity does not come to mind because it is not deadly like cancer or irreversible like AIDs. However, this illness has been heavily linked to heart-related diseases, depression, diabetes, and premature aging of the body and mind. Also, obesity drastically reduces one's quality of life as it starts to become incredibly difficult to enjoy simple activities.

Since the 21st century, we have started to see a massive increase in the population of obese and overweight. According to the World Health Organization, worldwide obesity has tripled since 1975, and in 2016, more than 1.9 billion adults are overweight. Of these over 650 million were obese ("Obesity and Overweight," n.d.). The main question that needs to be asked is: What changes have occurred in modern society that drove this massive surge? Well, during this time, we started to see a massive boon in technology and an increase in fast-food chains around the world. This allowed individuals to enjoy a more sedentary lifestyle that is filled with processed foods. A lack of movement coupled with an increase in calories and sugars inflated the scales and increased the obese community. However, behind the scenes, the food and diet industry is pulling the strings and able to profit off of obesity.



Timeline of Beauty

Currently, the US diet market is worth over 72 billion dollars (“The \$72 Billion Weight,” n.d.). It has brought an easier method for millions to lose weight and attain their ideal body image. This gold standard of beauty is what allowed the diet market and the food industry to start making a profit off of obesity. In today’s society, people are encouraged to love themselves and their own body. Everyone is different. However, social media and celebrities are a constant reminder that there is still a certain beauty standard. People around the world compare their own bodies to the movie stars and models to see if they are beautiful. The media is continuously pushing the idea that if you do not meet the standard, then you are not beautiful. More often than not, people do not meet this standard. Therefore, they use dieting and exercise as a means to transform their body. This process has been around for decades, however, the standard of beauty is always changing.

1900



In the early 1900s, we saw the beauty standards of the Western world start to shift towards a more slim physique. This ideal look was commonly depicted in advertisements, pushing women to diet and exercise. However, due to a lack of education in nutrition, a lot of women developed eating disorders in order to attain their ideal body. According to researchers from the University of Wisconsin-Madison, “highest reported prevalence of disordered eating occurred during the 1920s and 1980s, the two periods during which the ‘ideal woman’ was thinnest in U.S. history” (Harrison & Cantor, 1997). This shift towards a thinner body preference continued throughout the 60s and 80s, which allowed for the rise of models.

1910

1920

1930

1940

1920-1950s: Western world shifts toward a desire for a slimmer physique due to rise of flapper



1950

1960

1960s - 70s: Shift away from pinup girls and corsets, but still ideal body was young and thin



1970

1980

1980s: Emphasis on strong, athletic and toned bodies



1990

1990s: Shift back to skinnier bodies



2000

2010

2010s: Body positivity

2020

The media portrayed models in a limelight that allowed their figures to be classified as the golden standard of beauty. People had to transform themselves into a better version in order to keep up with fashion. Companies like Weight Watchers and Jenny Craig were created in order to make this transition easier. Originally, these programs had a very simple diet plan as it was based around a consumption of lean meat, fish, vegetables, and fruits, while banning alcohol, sweets and foods filled with fats ("What was the old," 2015).

At the same time, technology is starting to advance. With all the benefits modern technology provides, it also has negative consequences such as bringing more processed foods and a more sedentary lifestyle to the masses. With less energy being used, more energy is being stored in their bodies as excess fat. As a result, we start to see a sharp increase in the prevalence of obesity across the globe. To combat this, public health efforts portrayed obesity in a negative limelight in the media. However, Emma McClendon, "we begin to see a stark divide in the way bodies are presented across the media, with extreme thinness celebrated in fashion imagery while larger bodies are highlighted as 'unhealthy' and bad in reporting on obesity. And we begin to judge our own bodies through the same binary lens" (CNN, n.d.). This judgement continues to this day as children are starting to lose confidence in their own bodies. At a young age, children already know what the standard of beauty is and are already developing eating disorders. According to the Agency for Healthcare Research and Quality, "between 1999 and 2006, hospitalizations for eating disorders among children below the age of 12 spiked 119%" ("Children, Teens, Media, and Body Image," n.d.). Body image will always impact people as they will never view themselves to be ideal. This pushes them to fall into a regime of dieting and exercise.

The Turning Point

People around the world continue to use programs to help them lose weight, however, we continue to see an increase in obesity. Physicians around the world were seeing this trend as more of their patients were becoming overweight. On the other hand, health organizations believed that obesity would only affect first-world countries, so it wasn't an issue for the World Health Organization (WHO). However, according to research, "overweight and obesity were far more prevalent than underweight in adults living in Latin America and North Africa" (James, 2008). As a result, on June 3rd, 1997, WHO brought experts together to discuss the issue of obesity. During this expert consultation, obesity was officially declared as an epidemic. This change was extremely crucial as it turns obesity into a medical issue which can be cured by a "magic bullet".

This conference was also crucial for the drug and food industries. In order to define obesity, WHO used a report from the International Obesity Task Force (IOTF), in which the body mass index (BMI) to be classified as overweight went from 27 down to 25. This report reclassified millions of people around the world from being "normal" and "healthy" to "overweight". According to Professor Philip James, the author behind the report, the science showed that "the death rates went up in America at 25 and they went up in Britain at 25 and it all fits the idea that BMI 25 is the reasonable pragmatic cut-off point across the world. So we changed global policy on obesity" (Peretti, 2013). Even though the research seems viable, the funding for the research came from drug companies. This biased research pushed millions of people around the world to be categorized as overweight and unhealthy, allowing for the drug industry to capitalize on the larger pool of consumers.



Professor W. Philip James

Food as the Magic Bullet

With society becoming more focused on body images, people around the world started to diet and exercise more often. Weight loss programs were able to help make the transition more manageable. Seeing the untapped market, giant food companies, like Heinz and Nestle, bought out these programs. In 1978, Weight Watchers was sold to Heinz. A food company had entered the weight loss market. However, after 20 years, Heinz decided to sell the division to allow the company to refocus on food business ("Heinz Selling," n.d.), but they still had the license to use the Weight Watchers trademark for food products. One of these food products is Weight Watchers Smart Ones, which are frozen meals and desserts. With such a low-calorie meal, individuals purchase these meals, allowing Heinz to see "about \$380 million dollars in sales every year" ("Watching Your Weight?," 2015). Advertised to be tasteful and healthy, Smart Ones are processed meals that can make you more unhealthy as you lose weight. These meals contain genetically modified (GMO) ingredients, hidden MSG ingredients, preservatives, unhealthy oils, fake flavors, added sugars, and other ingredients ("Watching Your Weight?," 2015) that have all been linked to fatal diseases. A lot of these ingredients are not placed on the nutrition labels of the meals. Also, these same ingredients are highly addictive. So as people start to lose weight, they start to believe they are healthy. However, these addictive additives make it easy for them to fall back into a routine of unhealthy junk foods.

Another example can be seen with Nestlé profiting off of obesity through Lean Cuisine. Just like Weight Watchers Smart Ones, Lean Cuisine provides low-calorie, low-carbs, and low-fat frozen meals to consumers. Created by registered dietitians, these meals have been advertised to help individuals lose and maintain a healthy weight. As a result, Nestlé is able to see a profit of around \$518.7 million dollars a year, as of 2017 ("Leading frozen dinner," 2017). Even though the marketing makes these meals seem nutritious and healthy, the reality is that some of these meals are filled with "artificial preservatives, colors or GMO ingredients, some of which contain things like soy protein, sugar, corn syrup, silicone dioxide (to prevent caking) and other processed ingredients" ("Just How Healthy," n.d.). Continuous consumption of these processed meals make it easy for people to gain weight as these ingredients are highly addictive. According to the National Institute of Health (NIH), "on the ultra-processed diet, people ate about 500 calories more per day than they did on the unprocessed diet. They also ate faster on the ultra-processed diet and gained weight" ("NIH study finds," 2019). However, because these frozen meals are still categorized as healthy, millions of Americans continue to buy the products. This will create a continuous cycle of weight loss and gain, in which food companies, like Heinz and Nestlé, are able to profit off grandly.

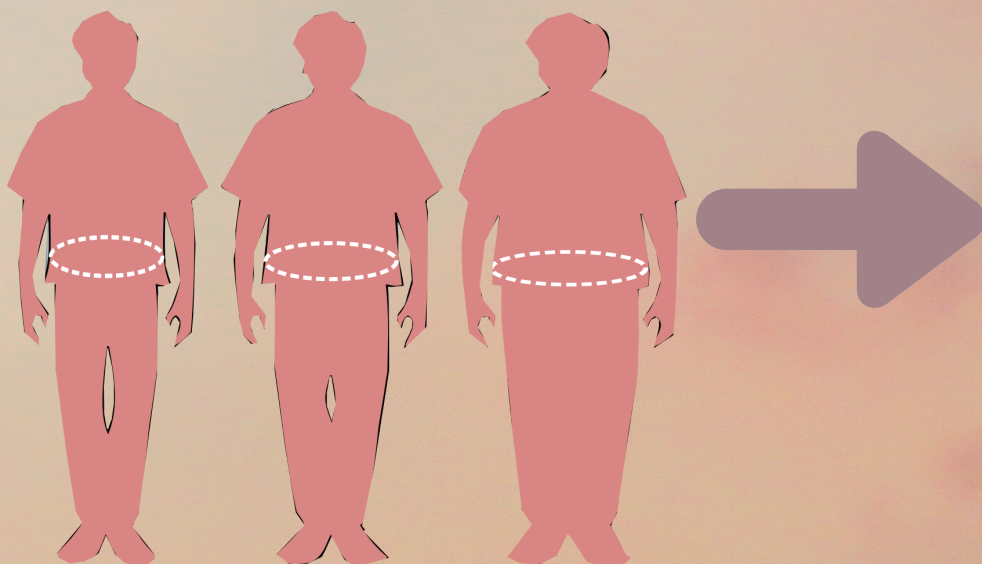
Profit off the Poor

Fresh produce needs to become more accessible for people to lose weight healthily. Moving away from highly processed meals to homemade foods can help families reach their goal weight and maintain it. There are areas in the world that don't have access to fresh produce, and resort to fast-foods and processed meals. These areas are food deserts and are at an elevated risk for obesity ("Those with Inadequate," n.d.). Food deserts are areas in the world, generally low-income communities, where access to affordable, healthy food options are limited due to the lack of grocery stores within convenient travelling distance ("Food Deserts," n.d.). However, when adding more grocery stores to these areas, the data continue to show that obesity is still an issue. Healthy produce becoming more accessible doesn't mean people have the funds to pay for the fresh food. According to researchers, "differential local supermarket density explains no more than about 1.5% of the difference in healthy eating between high- and low-income households . . . and that policies aimed at eliminating food deserts likely generate little progress toward a goal of reducing nutritional inequality" (Allcott et al., 2019). Residents in food deserts and low socioeconomic communities do not have the time or commitment to make healthy meals every day. Generally, prices for fresh and healthy produce are higher than unhealthy and junk foods. According to research, "fruits/vegetables often dominated the view from the main entrance at high-price stores, whereas junk foods were more visible in low-price stores" (Ghosh-Dastidar et al., 2014). By providing more grocery markets in food deserts, corporations are making unhealthy foods and frozen meals more accessible. A study was performed with residents of low-income communities to find what makes healthy foods inaccessible to them. According to the families and participants, "the need to stay within a fixed budget caused a trade-off between more healthful foods and, oftentimes, less healthy but calorie-dense foods" (Evans et al., 2015). When markets are placed in low-socioeconomic communities and food deserts, residents are more likely to be persuaded by the cheap junk foods and buy in bulk. As a result, the food industry is able to continuously profit off of obesity even in low-income communities.



Bottom Line Is . . .

food industries have been able to profit off of obesity through different avenues. The trends in body image was able to give rise to weight loss programs that helped attaining one's goal weight easier. Following the WHO conference in 1997, obesity was officially declared an epidemic that placed weight in the limelight. More people became focused on the ideal body and on losing weight. Seeing this untapped market, food industries were able to come in and profit off of the obesity market. Even in areas of low-income, the food industry is able to continue to make profit. In order to change this, fresh produce needs to become cheaper and more available to the masses. This allows consumers to make healthier decisions without cost as a main factor. There also needs to be education on nutrition. By teaching the public about nutrition, more effort can be put in to be more healthy. As we start to become more nutritionally conscious, people around the world can become healthier. The obesity pandemic can start to fade away and food industries can no longer profit off of this deadly disease.



Blue Zones Projects

The Transformation of Communities

By: Yitz Jacobson

The Blue Zones Project is a community improvement initiative designed to build healthier cities, states, and businesses where people live longer and better lives. Since 2010, it has been recorded that the Blue Zones project has impacted over three million lives in 50 communities across North America regions and is constantly expanding. New York Times best-selling author Dan Buettner has led the development of this program to transform communities, help them achieve greater rates of longevity, and promote a healthier diet and lifestyle. Rather than relying solely on individual behavior change, the Blue Zone Project promises to build easier choices for the community as a whole.

As stated in the Blue Zone policy guidelines," instead of repeatedly attempting to get people to exercise in communities, Blue Zones attempt to make walking more available than driving"(Our Approach). This walking initiative also ties in with their commitment to save the environment by reducing carbon emissions, considering not just the short term but the long term of a community's life choices.




BLUE ZONES

Diet Efficiency

Diet is a major component to the Blue Zones Project as the foundation seeks out more efficient ways to make wholesome, natural foods more accessible and less expensive for the public, prompting the community members to eat healthier and take time to consider what they are putting into their bodies. This plan takes an average diet to the next level as the Blue Zones Project suggests that populations should drink moderate amounts of wine, eliminate added sugar, and go easy on eating meats. With these Blue Zone guidelines, the founders predict populations to have much higher chances of having a healthy life and increasing longevity rates.



What Are the Costs?



The Blue Zones Project requires a large sum of money to become instituted within a region. As Lauren Sausser found in her 2018 study, “targeting a Blue Zones project in Charleston, South Carolina would cost up to \$10 million, not including an additional \$3.5 million in extra expenses the project would need,” (Sausser, Blue zones, a multimillion-dollar wellness project). It is apparent that a Blue Zones Project requires a lot of funding in order to start up, which is why often, these projects are funded by large private hospitals and health insurance companies. These companies are widely known for investing in organizations who are willing to make the health of local citizens more prominent, therefore giving Blue Zones a chance to become the “next big solution for health problems”.

The Disparity...

As we begin to look closer at the Blue Zones Project, we begin to notice a pattern of communities that these projects are being distributed across. To illustrate, the Blue Zones Project partnered with high income beach cities such as Hermosa Beach, Manhattan Beach, and Redondo Beach which were named nationally certified Blue Zones Communities in 2016. These particular communities are known to be very affluent in regard to streams of income, opening many doors to new innovations in their neighborhoods. Logically, this means that these areas have the means to be able to afford to include a Blue Zones Project into their cities, as they collectively seek out ways to become healthier. Additionally, these communities are actually the largest group of communities that have achieved Blue Zones Community certification as they all displayed very successful rates of implementation of the Blue Zones Project goals. According to an article by the Blue Zones foundation, “there was a 25% in obese and overweight adults between 2010-2017, a 36% drop in smoking between 2010-2017, and now 65.8% of Beach City residents report exercising approximately 30 minutes a day, which is a 9% increase since 2010”(Blue Zones Project Results, 1). It is obvious that these communities are making great progress on the path to achieve longer and more efficient lives, adding more credibility to the Blue Zones legacy.

Now although we do see the pros of how these higher socioeconomic regions are benefitting, we must also take into consideration other populations. A major concern of the Blue Zone Projects is they are moving towards increasing the health disparity gap as the project appears to be geared toward communities with higher socioeconomic statuses. This means the gap between how the rich and the poor obtain food and resources can be extended even further, varying the diets and lifestyles of the groups. Besides, it is already challenging for impoverished communities in food deserts to shop at establishments that sell healthy, nutritious foods, which makes the Blue Zone Project very infeasible for them.

Other Solutions?

Although it may not be possible for all communities to adopt The Blue Zones Project, other solutions like farmers markets can be helpful to areas in food deserts. Farmers markets are a great way for communities to get healthier as they increase access to fresh foods, promote sustainability, and at the same time they stimulate local economies. The cost of owning a farmer's market comes at a very affordable cost for farmers to start selling their own produce and goods. In fact, according to California's Farmers Market, "the cost of opening up one is usually around a budget of \$12,000-\$20,000"(Open a Farmer's Market, 1). What makes matters better is that organizations like the California Farmers Market Association can contribute toward startup funds, making it more feasible for low income, "food desert" areas to support farmers markets. With these strategies, neighborhoods who can't afford to implement the Blue Zones Project still have a similar establishment to provide them with essential needs for healthy and nutritional diets. The amount of time it takes to build a farmers market also comes at an adequate amount of time as it typically takes around 6 months to get one started.





Proper education can also be an efficient method for getting members in food desert areas to become more health conscious. As a matter of fact, we begin to witness the importance of food and diet by taking a look at the Expanded Food and Nutrition Program. This specific program was designed across the United states for low income populations to decrease nutrition insecurities and increase awareness on taking care of one's health to live a better life. This program achieved impressive results as the National institute of food and Agriculture data confirmed that “individuals improved their overall diets, and dramatically improved their physical activity levels”(Expanded food and nutrition education). Now although this program does not completely solve the problem of people living amongst food deserts, it does allow options for bettering the community.

Blue Zones: a great solution or a glorified scam?

Given what we know about Blue Zones and their newfound fame for their habits and "consequential" longevity, how much credit can we attribute to these areas from the current research? While Blue Zones are certainly admirable in their characteristics, given our knowledge of the ever-changing and often sensationalized Diet Industry and the profit-driven foundation, Blue Zones Projects, can we ultimately deem Blue Zones exemplar? We hope that we provided our readers with the materials and knowledge to form their own opinions on Blue Zones and the variety of factors that may contribute to their stardom.



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