YOU ARE WHAT YOU EAT

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YOU ARE WHAT YOU EAT
I. Introduction

The prevalence of childhood obesity, particularly among children from low-income families, has major repercussions for the future of our health status. Low socioeconomic status (SES) families are at a disadvantage because they lack the proper education and resources available to be educated around these health issues. “Childhood poverty is estimated to cost the United States 500 billion in lost productivity each year, or 4% of GDP.”¹ These families are usually on a government funded programs, thereby have a set budget for food for their families the week or month. Many federal and state funded programs: Head Start, Food Stamps, and The National School Lunch Program use poverty guidelines to qualify families for government assistance. “One in four children in the US live in poverty with over 194 million children receiving free or reduced price lunch”.² There are advantages and disadvantages to some of these programs, including strict guidelines and regulations on what can be purchased. Some programs are not easy to regulate especially what is being purchased from the grocery store. Another limitation is that only certain grocery stores take government assistant programs, and these grocery stores are strategically placed in more affluent counties with a higher level average income. Each program has positives and negatives to its program however its the governments to make the best program for the recipients and tax payers. In our society we are known as the microwave culture with quick and easy meal ideas, especially kids on government assistant programs. After looking at the correlation between children’s physical health and families that are given money to get food, we fail to teach these families the proper eating habits. We need to encourage families on government assistant programs to eat healthier and teach them the basis necessities to lead healthy lifestyles.
A. How does low-income correlate to childhood obesity?

“91.6 million or (30% of the population) is in poverty at 200% of the Federal Poverty Level—equal to the entire populations of California, Iowa, Texas, New York and Massachusetts combined”. ³ These statistics for families living in poverty are all based off the family model of four people in one household. “For 2014, the Federal poverty guideline for a family of four is an annual income of $23,850. This is the most commonly used statistic to compute the Federal poverty level. Add $4,060 for each additional person to compute the Federal poverty level for larger families. Or you subtract $4,060 per person to compute it for smaller families. For example, a single-person household is considered poor if his or her income is $11,670 or less”. ⁴ There are many factors that are taken into consideration for determining the different levels of categorizing what low-income is. For example, the national low-income level is different than California because the cost of living is higher in the golden state. Specifically in Placer County, if four persons are living within one household, it is considered low-income if one makes less than $38,050.⁵ California’s low-income versus the National low-income is higher because California’s minimum wage is higher, which raises the cost of business within the state. In February 2011, food prices rose 3.9 percent, which is the largest gain since November 1974.⁶ Just like gasoline prices, food prices will double, or even triple if there is demand for the product, a true demonstration of inflation. When there is a need for a commodity the cost will go up. Considering low-income families and childhood obesity, the cheaper option at grocery store will always be the processed food over the fresh food and produce section. These low-income families are on government funded programs but usually do not get the proper education of healthy food options. The government tries to promote healthy eating habits through the food pyramid diagram.
The food pyramid guide was first issued in 1974 in Sweden. Food pyramid universally used by the USDA was popularized in 1992, then was revamped in 2005, and finally revised again in 2011. The is the original food pyramid in 1992 had people focus mostly on the carbohydrate section, which made up the lower level, foundation portion of the pyramid. Six to eleven servings of grain is a huge portion that makes you full, but is more difficult for our bodies to digest. It also reads to eat a serving of more vegetables, than fruit, milk, and meats. Finally, the original food pyramid lumps together fats as oils and sweets. This format is concerning because it leaves fruits and vegetables as a secondary source of intake of food.

In 2005, they turned the pyramid on its side and was re-named MyPyramid, with the slogan, “Steps to a Healthier You.” MyPyramid advised people to get an equal amount of grains, vegetables, fruits, and milk with some meats and beans, and little oil. Sweets were also removed in this pyramid. MyPyramid also features a stick figure that is getting their exercise by running up the stairs to the left of the pyramid. This suggests that MyPyramid is not only incorporating what you eat, but also recommending that people should get the proper physical daily activity.

Finally in 2011, the USDA completely threw out the pyramid and replaced it with a plate, “MyPlate.” MyPlate is the most current standing USDA food guide that we now base our food intake off of. MyPlate, by contrast, is a “simple, visual, research-based icon that is a clear, unmistakable message about portion size,” Vilsack said. Having approximately an equal amount of fruits, vegetables, grains, and protein, with little dairy appears to be the message of this food scheme. There is also no longer sweets added to the plate. The USDA has modified the wording of meat to protein as vegetarianism or different forms of that have become more popular. There is no longer a stick figure in the MyPlate eating plan because the main way to lose weight is 80
percent diet, and 20 percent exercise. The main idea that the USDA wants to get across is for people to eat in moderation and eat less overall.

Promoting healthy eating and moderation is the number one priority for the USDA, and the government needs to reach out to low SES families. Some ideas such as volunteering our time in classrooms or in the child's ministry classrooms come to mind; however, what is critically needed is to educate these low-income families on what is right and wrong to eat according to the bible. Many would agree that giving up processed food for God would be fair, and even honorable. When we look in the bible, specifically in the Old Testament in Genesis, Exodus, Leviticus, Numbers, and Deuteronomy, under certain circumstances, God told his people to eat a certain way, and for exact reasons. In Genesis 1:29, “Then God said, “I give you every seed-bearing plant on the face of the whole earth and every tree that has fruit with seed in it. They will be yours for food”. This was the first sign that God wanted Adam and Eve to eat clean, and they ate a vegan, no animal product diet. This was easy for Adam and Eve because they were in the Garden of Eden, which consisted of solely produce, nuts, and grains. This was the original diet that God intended us to have. Later, however, in the Bible God began to incorporate meats, dairy, and specified foods which were “clean” and “unclean” to eat. Three Biblical Principles: Eat the foods God created for you, Don’t alter God's design, and Don’t let any food or drink become your God. These guiding biblical principles require both a commitment and resources available to be consistent with this diet. After the fall and Noah’s Ark, God gave us other foods that could be eaten. In Genesis 9:3,4, “Everything that lives and moves will be food for you. Just as I gave you the green plants, I now give you everything. But you must not eat meat that has its lifeblood still in it.” God gave approval to eat animal meat, but within certain limitations. God then ex-
plained exactly what to eat, and where to get it. In Leviticus 11:9,12, “Of all the creatures living in the water of the seas and the streams, you may eat any that have fins and scales... Anything living in the water that does not have fins and scales is to be detestable to you.”¹¹ This consist of food from the sea such as shrimp, scallops, mussels, and oysters; anything at the bottom of the ocean food chain. It is interesting to note these foods are mostly located at the bottom of the ocean, so they are viewed as a treat because they difficult to acquire. In Numbers 11:5,6, “The Israelites started crying again and said, ’If only we had meat to eat! Remember all the free fish we ate in Egypt and the cucumbers, watermelons, leeks, onions, and garlic we had? But now we've lost our appetite! Everywhere we look there is nothing but manna!’”¹² We see here that the Israelites were given explicit instructions not to eat certain foods as they were in exile, which meant that the meat the Babylonians were eating was not “clean.” God gave the Israelites strict instructions to stay away from “unclean” food and if they did, they would be rewarded. God desired for us to be the best people we can be, in all aspects of life. When we eat processed foods, it is going against what our bodies need and what God has given us. “God has placed enzymes in foods to help with the digestive process. Adam and Eve ate raw plant foods containing all of the enzymes put into them. We only receive benefit from the foods our bodies are able to digest properly.”¹³ God does not want us to starve ourselves, He simply wants us to feel good both inside and out. There is a huge variety of choices to choose from to eat in a biblical way that glorifies God. God also allows small portions of ingredients such as spices, herbs, olive oil, and butter to cook “clean” meat and product for a biblical meal.
1. Quality Over Quantity

Evidence has suggested that low socioeconomic families choose to buy food based on the quantity of food purchased over the quality of how healthy the food is because they do not want their families to go hungry. “While less expensive, energy-dense foods typically have lower nutritional quality and, because of overconsumption of calories, have been linked to obesity”. While this is a valid point, low SES families are short sighted in considering the long-term effects processed foods affects their families. The food low-socioeconomic families are buying are processed foods that contain sugars, sweets, and empty calories versus healthy, home cooked meals. Processed foods can cause sluggish feelings and less active behavior instead of fruits and vegetables that fuel and provide energy. It is possible that low-income families do not think about healthy food because it is less accessible to them. How can we help the impoverished to rise out of disparity and get these low SES families on right track to a healthy diet? Most families living in poverty do not get the proper education of nutrition facts and health and wellness information about heart disease.

B. How does unhealthy eating effect our bodies and hearts?

One serious consequence of eating unhealthy is it can lead to heart disease. There are many correlations that support the link between cardiovascular disease and obesity. Being 20 percent overweight can notably increase your risk for developing heart disease, specifically if you have a lot of abdominal fat. Eating unhealthy processed foods and heart attacks parallel each other. Heart attacks occur when there is a loss of blood supply, which is usually a coronary artery or blood clot that is blocking the passage way to get to the heart. If a portion of the heart...
muscle dies one will experience chest pain, which is why people say their chest hurts and even more so when they are overweight, one can assume they are having a heart attack. Along with heart attacks, people that are obese can develop diabetes, the most common form being type 2 diabetes. This is when your sugar levels rise higher than the normal level. This causes hyperglycemia, meaning high glucose or sugar. If one has type 2 diabetes, then your body does not accurately use and is resistant to insulin. As a result, your body, specially your pancreas, will create more insulin than needed to make up for it. Since your body cannot keep up, and one will eventually have to be put on diabetes pills or insulin shots to keep your sugar levels at normal rate. “Individuals with insulin resistance or diabetes in combination with one or more of these risk factors are more likely to fall victim to heart disease or stroke”. Consequently, if your diet is not taken seriously, this can cause you to gain more weight. About 80 to 90 percent of people that are diagnosed as obese, are the people that are diagnosed with type 2 diabetes. This usually occurs when people are above the age of 40, but if children have poor eating habits that continue into adulthood, they can be diagnosed with diabetes young, currently its being discovered in peoples 20’s. This underscores why it is imperative to watch what you eat.

Stroke and heart diseases are the number one causes of death and disability among people with type 2 diabetes. As a result, 65 percent of people with type 2 diabetes dies from some form of heart disease or stroke. It is alarming to think that the decisions you make on what you eat can have such a profound effect on your overall health and well-being. “Heart disease is the leading cause of death in the United States and is the major cause of disability. In 2002, almost 700,000 people died of heart disease, just over half of which were women. Statistically this means that nearly 30% of all U.S. deaths were due to heart disease”.

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The reasons why women have a higher chance of developing heart disease are unknown, but if a woman becomes pregnant and already has type 2 diabetes, it is very risky for her and the baby. “Nobody knows for sure why these heart risks are different for women than men - whether it’s hormones or socioeconomic factors or some combination of those two”. When low-income women are pregnant they should be even more cautious of what they eat because there is so much sugar in processed foods compared to natural foods such as fruits and vegetables. While fruit does contain sugar, it is natural sugars as compared to processed food and drinks, such as frozen television dinners and soda. It is important to talk to a primary care physician to get your blood sugar levels at a normal level and under control. Research suggests that females with a high blood pressure while pregnant will most likely have a baby with low blood pressure.

One way to get your heart disease and diabetes under control is to maintain a healthy weight by increasing your exercise. You do not need a gym membership to exercise. Take advantage of the resources you have in your community such as parks and running trails, but the problem with this is low SES families do not have the luxury of community centers. “Lower income neighborhoods have fewer physical activity resources than higher income neighborhoods, including fewer parks, green spaces, bike paths, and recreational facilities, making it difficult to lead a physically active lifestyle”. Ultimately, exercising and losing weight can help avoid type 2 diabetes. It can also help lower the risk of heart attack, stroke, and decrease your blood pressure. Even simple tasks such as cleaning your house, gardening, or any aerobic activity can help get your heart rate up and moving. You can also use household items as weights, or better yet, you can use your own body weight as resistance. There is no excuse to not workout besides pure laziness and lack of
motivation. If you already have diabetes you can also try diabetes vitamins or other natural remedies to alleviate and assist your diabetes.

C. What are some real life examples in today’s American society?

1. Super Size Me

There are numerous examples of people testing and demonstrating that processed foods such as fast food are extremely poor for your diet and overall health. Americans are known for being busy and always on the go, but are inattentive when it comes to healthy eating habits. Americans eat out about 5 times a week. The drive-thru was invented in 1930 and has been the staple for the American diet ever since then. The ability to get food without leaving your car, what can be more lazy than that? The drive-thru is the death of our nation. The 2004 documentary, “Super Size Me,” follows Morgan Spurlock as he eats only McDonald’s for breakfast, lunch, and dinner for a 30 day experiment. Upon the completion of this experiment, Spurlock gained an astonishing twenty-four and a half pounds. This experiment correlates with the American diet and what people consume on a normal basis. It is not necessarily the exact American diet, but it demonstrates the match between processed food and weight gain. Since 1980 to the present, the amount of children who are obese has doubled. Obesity is now second only to smoking as a major cause of preventable death in America with over 400,000 preventable illnesses related to obesity each year."

Processed food is the new tobacco industry. A startling affect of processed foods are that people actually start to crave the salts and sweets, tricking their bodies into thinking they need it. America is the fattest nation in the world, with over 100 million Americans that are overweight or obese. Sixty percent of all U.S. adults are overweight or considered obese. In the present,
2014, everything is about convenience to Americans. We want everything instantaneously without doing any work ourselves, but we also want credit for it. Americans want results immediately, and when it comes to meal prepping or loosing weight, it does not come easy. It takes time and dedication to get the results you want, especially when it comes to our bodies and overall health.

II. What is currently being done to address the problem?

A. How can we educate and decrease the obesity rate among children living low SES households?

Low-income families are not getting proper nutrients. “Researchers from the University of Nebraska-Lincoln found that almost 70 percent of the low income families in their study were not getting enough of several vital nutrients, including vitamins A and C, protein, calcium and iron.”26 The Government needs to implement a government funded program to educate low-income children on eating whole foods at a young age. Kids need know what healthy foods are good for our bodies and what foods are not. These children needs classes to instill these good habits for their future. The government can do this by providing programs like Supplemental Nutrition Assistance Program (SNAP-Ed) Project.

SNAP-Ed Project focused on low-income children in grade school (kindergarten through eighth grade) to eat more fruits and vegetables. This project had the children center on self-evaluation and view their progress through out the program. One of the most important findings from this study is that “families want to eat healthy foods, even if they have limited resources,” said Altarum Institute’s Loren Bell, the study’s project director.27 Having programs like SNAP-Ed assist low SES children make healthy choices for snacks and to enjoy eating their fruits and veg-
etables. The SNAP programs concluded that of the three states studied, the children who participated in the nutrition education programs developed better eating habits as their day-to-day fruit and vegetable intake at home programs like SNAP-Ed have been proven time and again in statewide studies which is why this sort of policy needs to be implemented on a National level as another education requirement.

1. **What is the United States doing on a Federal Level to help kids to get active?**

First Lady Michelle Obama, on February 9, 2010 founded “Let’s Move!,” a program to show kids that being healthy is dedication to everyday exercise and being consistent with eating your fruits and vegetables daily. When looking into the program you can tell this is not just a policy issue but a personal passion. She talks to children in focus groups, goes out and promotes her “Let’s Move!” initiative on *Late Night with Jimmy Fallon, The Rachael Ray Show,* and NFL PLAY 60. She also provides advice on her “Let’s Move!” website on how to learn these good habits. The Task Force recommendations focus on the five pillars of the First Lady’s *Let’s Move!* initiative: Creating a healthy start for children, Empowering parents and caregivers, Providing healthy food in schools, Improving access to healthy, affordable foods, Increasing physical activity.

“All you have a role to play in reducing childhood obesity, including parents and caregivers, elected officials from all levels of government, schools, health care professionals, faith-based and community-based organizations, and private sector companies. Your involvement is key to ensuring a healthy future for our children.” Michelle Obama acknowledges that times have changed and children are not getting the proper education on healthy eating habits and daily exercise guidance.
Thirty years ago, the world was a different place; portions were smaller, we did not have television or video games, and children used to play outside until dinner was ready or when it turned dark outside. During the 20th century we were more focused on the home life, but parents are busier than ever before and now both parents work to keep up with bills and the economic recession. Michelle Obama’s whole initiative is to change children’s habits back to how kids used to be thirty years ago, and to be more active again. On the “Let’s Move!” website, there are many links that could assist families make better food choices. For example, the United States Department of Agriculture (USDA) has a website www.choosemyplate.gov that provides options to eat healthy with popular topics included such as “Healthy Eating on a Budget,” “10 Tips Nutrition Education Series,” and “Sample Menus and Recipes.” This provides parents with great tips on how to prepare healthy meals for their families.

At the White House First Lady Michelle Obama spoke about the important to give our children healthy snacks. Michelle Obama asked marketing and advertisement junk food companies to stop marketing to children. 86% of advertisements are telling them to buy salty, sugary, unhealthy junk food, but only one advertisement a week for healthy food options. Television shows like Sesame Street and Disney company joined together in this Let’s Move! Campaign to promote healthy eating for children.

Another organization that promotes a healthy lifestyle is the National Football League’s (NFL) PLAY 60, which promotes children to get their physical activity daily. Play 60 was founded in October 2007 whose mission is, “To make the next generation of youth the most active and healthy”. Yet getting children to be active in a generation where children have unfettered to
television, video games, and too much technology can be challenging, particularly to get them outside and moving around.

PLAY 60 bus physically comes to your school and partners with local NFL players from different teams go to elementary schools. To encourage fun healthy way to stay active, the players show kids that being active for at least 60 minutes a day is good for your body. Another event PLAY 60 hosts is on Fan Fest days. Young fans can play on the football fields for Fan Appreciation Days. They have obstacles courses and run to catch footballs, just like the players do. PLAY 60 also puts on football camps during the summertime.

The NFL players interact with the young fans and show them how to be active while they are not in school. Some analysts might believe the NFL PLAY 60 program does not help our youth because some players might be considered obese on paper due to their Body Mass Index (BMI) being very high. However, taking that NFL PLAY 60 program itself into account, the point is to get kids to get out and moving around for 60 minutes a day which is what the program does. This does not factor in if linebackers have high BMI standards. PLAY 60 only takes into account that they gets kids outside and moving. Having an organization like this helps kids get prepared for healthy lifestyles with exercise routine they can do with their friends and get them moving around. NFL PLAY 60 gives children the necessary foundation for a regular exercise routine they then can do at home. NFL PLAY 60 is also linked with United Way, The Salvation Army, KaBOOM!, and LISC, four non-profit organizations that share the same mission on reversing the childhood obesity trend by getting kids to be active and healthy.

The United Way focuses on education, income, and health to lay the foundation for a positive life. Working with NFL PLAY 60 gives United Way the help they need to boost recognition
about their seriousness to the health and fitness of kids. “It’s part of United Way’s 10-year goal to increase by one third the number of youth who are healthy and fit”.

The Salvation Army has numerous after-school programs to provide secure and enjoyable places to go. They have programs like summer camps, and sports leagues that promote exercising the body, mind, and spirit of kids in need. This also helps to get kids off the streets and guide them into active adults. KaBOOM! builds playgrounds within walking distances for the youth. They work with local NFL Clubs and have local volunteers put together play structures so kids have a place to go and be active. Finally, the LISC focuses on creating communities that are acceptable to raise a family in by building local football fields in low-income neighborhoods. This gets them active and off the streets for generations to follow.

2. What are states doing to promote healthy eating habits?

SB 1000, sponsored by Senator Bill Monning in California proposes adding warning labels on sodas. If this bill passes it would go into effect on July 1, 2015. Since sugar is linked to obesity, this bill would allow people to see what is in their drinks and to make more educated decisions about what they are putting into their bodies. This stance suggests that, like tobacco and alcohol, which both have warning labels that state the risks, if these labels were in soda would give people the information need to make healthier drink choices. With tobacco, people knew smoking was not healthy for them, but people smoked anyways. However, when all the studies came out in the 90’s about the risks and lung cancer campaigns, more people started quitting, but the warning labels were not the cause of the drop of people that quit.

High fructose corn syrup is the new tobacco addiction. High fructose corn syrup is linked to obesity because the amount of sugar intake on a day-to-day basis. “We agree that obesity is a
serious and complex issue,” California Beverage Company said in a statement. “However, it is misleading to suggest that soft drink consumption is uniquely responsible for weight gain. In fact, only four percent of calories in the average American diet are derived directly from soda.”

There are facts that link drinking soda to causing overweight children and adults. The problem is it is hard to get people to stop drinking soda once they are used to drinking it on a periodic basis.

Americans who drink soda crave sugar constantly because it is like a drug that they need to function, especially sodas that have caffeine in them. Caffeine is a drug that people must wean off of when quitting, because if they were to quit cold turkey they will feel sick and have withdrawals. The problem with putting warning labels is that there are already calorie count and serving sizes. People need to be more accountable to what they are putting into their bodies.

The original serving size for soda used to be an 8-ounce glass bottle. Now, the serving size is a 12-ounce can or a 20-ounce plastic bottle. This is deceiving because it is shorter, but contains more liquid, and the 20-ounce is actually 2.5 servings. In a way, people are already being warned on how much sugar is in one soda, but the real problem is how many sodas Americans drink in one day. “Drinking just one soda a day increases an adult’s likelihood of being overweight by 27% and a child's by 55%, according to a World Health Organization-commissioned study published last year in the British Medical Journal”. Diet sodas are not any better as they contain fake sugars, and there is not enough research to know the long term side effects of that. The risk for children becoming overweight is 55 percent if they drink only one soda a day, but warning labels are not going to get people to stop drinking soda. Just like tobacco warning labels, soda will be no different if this bill gets passed.
Another non-profit is an organization in California that focuses on educating children and teenagers to make healthier food options. The Center for Ecoliteracy is a nonprofit organization that was founded in 1995. “We recognize that students need to experience and understand how nature sustains life and how to live accordingly,” specifically focusing on kindergarten to twelfth grade students and holding seminars to show them videos of the proper foods to eat and how to cook with healthy ingredients. Since 2006, they have expanded this nonprofit up to people all over the world. They are trying to revamp school lunches to make them healthier. “The Rethinking School Lunch Guide, published in 2004 and revised in 2010, which provides ideas and strategies for changing your school meal programs, promoting health, and increasing ecological understanding.” Since the government pays for school lunches for most low SES families, they will be receiving a better meal that is healthier for their young and growing bodies. Today many students opt for school lunches. It is more convenient for the parents so they do not have to pack a lunch and the kids like to get what their friends have for lunch. “By the time today’s kindergartner finishes high school, she may have eaten well over 4,000 school meals—4,000 opportunities to strengthen her body and mind, introduce food pleasures that will make her a lifelong healthy eater, and deepen her engagement with the natural world.” School lunches are a relied on as a source of energy for children while they are at school. For some, this may be their only healthy meal they will have all day. “Less than half to the children receiving free or reduced lunches have had breakfast before heading off to school”. Children need good fuel to make them feel more active and ready for the day. School lunches for the low SES students become even more important because it becomes the main meal they receive during the day. School breakfast and lunch programs are very important, especially for students from low SES house-
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holds. “Nearly two-thirds of the students participating in the National School Lunch Program qualify for free or reduced-price lunches because of their families’ incomes. According to the House Committee on Education and Labor, “For millions of families, the meals their children receive in school or in child care are their only chance at a healthy meal all day. In 2008, more than 16 million children lived in homes without access to enough nutritious food.” Helping these low SES children with one important meal a day can make a significant impact on leading a healthier lifestyle in the future.

III. Government Subsidies

1. History of Subsidies

For the first couple hundred years, the United States agricultural history was simple. It was how most Americans made a living. Until the 1920’s when the Great Depression plagued American society, the President Franklin D. Roosevelt, focused on subsides as a form of economic development. “Subsidies originated during the Great Depression and the Dust Bowl catastrophe of the 1930s, when there was a genuine fear that the nation's agricultural sector was on the brink of collapse.” President Roosevelt signed the Agricultural Adjustment Act (AAA), which monitored agricultural production by wrecking crops they had previously planted and ensured not to plant any future crops altogether. This was done to raise the value of crops. The Supreme Court later struck down the AAA declaring it unconstitutional. In 1938, the Soil Conservation and Domestic Allotment Act, which prevented soil from being eroded, passed, which permanently created an organization for giving farmer subsidies. “Recipients include Mark F. Rockefeller, a fourth-generation heir of the famous family who was paid $342,634 to not farm from 2001 to 2011, so that his land in Idaho could return to its natural state.” The reason they
were not permitted to farm was to raise the value of crops and it required money to grow crops. Also, if farmers overproduced the price would have fallen, and giving less demand for the crops.

On the other side of the argument, it is not specifically the subsidies fault that the agriculture industry is had problems before subsidies came into place. “In any other business, when the price of the commodity you're selling falls, the smart thing to do is to curtail production until demand raises prices. But farmers don't do that, because there are so many of them, and because they all operate as individuals, without any coordination.” Farmers, in truth, increased production, in order to keep the same amount of money coming in. In retrospect, if all of the farmers worked together and did not grow the same crop, they would have been better off in the long run, but now most farmers grow corn.

2. Corn is in Everything

The crop that is still being produced is corn. Corn is considered a “filler” for a huge majority of food Americans eat. “The United States is, by far, the largest producer of corn in the world, producing 32 percent of the world's corn crop in the early 2010s. Corn grown on over 400,000 U.S. farms”. At fast-food places especially, corn is used in everything. It is in the soda as the sweetener, in the meat that is feed to the cows and chickens, and french fries because the oil they are fried in is corn oil. “If you are what you eat, and especially if you eat industrial food, as 99 percent of Americans do, what you are is “corn”. Not only are Americans getting feed corn, but the animals we are eating are getting feed corn as well. For chickens to get corn that seems somewhat normal, but for cows to eat it? Cows cannot actually digest corn. “The problem with this system, or one of the problems with this system, is that cows are not evolved to digest corn. This creates all sorts of problems for them. The rumen is designed for grass, and corn is
just too rich, and too starchy. As soon as you introduce corn, the animal is liable to get sick.\textsuperscript{45} This makes the cow’s lifespan very short, a maximum of 14 months. The corn allows them to get fat very quick, which is precisely why they are fed them corn. Cows are meant to eat grass as they are one of the few mammals that were put on this earth that is able to digest grass, but are interestingly only feed grass until they are six months old. It is comparable to human babies eating solid food. Their little bodies are not able to have that amount of food at such a young age. The main dispute here is that corn is in everything, which means that a lot of what we eat contains fillers and lack nutritional value.

IV. What really goes into processed food?

1. Are you listening to the lies?

A majority of Americans rely on what the labels say on food products in grocery stores. “In all, 54 percent of consumers read a product’s label before they buy a food product for the first time, and 41 percent of this group believe that most of the claims made -- like “low fat” or “high fiber” -- are accurate”.\textsuperscript{46} When buying food at the grocery store, customers can be deceived from the marketing on the boxes. This happens especially when buying processed foods. People look at the pictures of the big red barns with happy animals grazing on the green grass and assume the animal must have been treated humanly, which is precisely what the picture on a box is attempting to do. Companies depict that their farm raised animals that have had such a great life up until slaughter day. The complete opposite appears to be true. There is a huge difference between “100% natural” and USDA Certified Organic. The 9 misleading claims to watch out for include the following:
1. Natural
2. Healthy
3. Calorie Counts
4. 0 Grams of Trans Fat
5. Made with Whole Grains
6. Misleading Package Images and “Made With Real Fruit”
7. Lightly Sweetened
8. Serving Sizes

When a food label says “natural,” this means it could still have high fructose corn syrup in it or pesticides. When it says “healthy,” this is based off of meeting under a certain limit of sodium, saturated fat, but still has a certain amount of vitamins and minerals that are healthy for you.

“Calorie counts,” according to the FDA allows a 20 percent margin of error when it comes to calorie counts. This means that your 500-calorie meal could actually contain up to 100 calories more. Further, researchers from Tufts University found that packaged foods “May contain an average of 8 percent more calories than their labels claim, while restaurant meals may contain 18 percent more.” When food labels say “0 grams of trans fat,” companies have a margin of error of about 0.5 grams, so if people eat two or three times more of the serving size, they are actually eating 1-1.5 grams of trans fats at times. “Made with whole grains” is also very deceiving because more than likely, the first ingredient is enriched wheat flour, which is a combination of wheat and flour. The only way to truly test if it is 100% whole grains is by weighing the loaves. The heavier of the two loaves is the one made with the real whole grains. Refined flour is lighter than whole grains, and the color of the bread can indicate this as well. This is as long as there is not brown dye listed on the nutrition label. “Made with real fruit” does not guarantee it is made with 100% fruit. It is usually only made with a small fraction of actual fruit. An example would
be gummy fruit snacks, sometimes it’s not the fruit that is represented on the box that they extract the flavor from. They just dye it to represent the color of the fruit. Now, “lightly sweetened” is a false label all together. Lightly sweetened can mean anything because there is no base to go off of how sweet something was originally.

“Serving size” is also marketed very strategically. They are labeled as “individual size,” but have multiple servings in that “individual size”. It is important to read the fine print to truly determine how many servings are in that one bottle of soda or that one muffin. “Certain health claims,” according to the FDA, does regulate certain health claims such as “may reduce the risk of cancer” -- but others like “helps maintain a healthy heart” or “supports the immune system,” are not”. A product can be marked with any number with a random health description that is not necessarily true. The moral of these claims are you cannot believe what you read, and it is important to look up the brand and see if it is healthy or unhealthy for you.

How does one make healthier food choice options so you do not fall for these tricks? It is recommended to shop more in the produce section instead of the frozen food section. Fruits, vegetables, and lean meats usually do not have the nutrition label which indicates what you see is what you get. Produce and lean meats should be the bulk of your diet if you are trying to lead a healthier lifestyle.

2. Why Processed Food is so Bad for You?

When you eat processed foods, there is an absence of good nutrients, and preservative chemicals that are put into the food to make it last longer. The reason processed foods become striped of their nutrients because processed foods need to have a longer shelf life. To do this, companies do a heating and cooling process, which reduces important nutrients and these are
seen as empty calories. These empty calories that you are consuming while eating processed food certainly make you full, but they do not provide any nutrients that your body needs. “So either you’re not getting these nutrients, which is bad for your general health, or you need to eat a whole bunch of calories in order to get them.

On the other hand, if you’re consuming “nutrient dense” foods (fresh foods that aren’t processed), then you can get all the nutrients you need with many fewer calories. So this is the main thing that processed food is missing – nutrient density.”

Also, when you eat processed foods, sometimes it can taste different than if it were homemade. This is because processed food loses a large amount of flavor as they transform to whole food to processed food for greater shelf lives.

Chemicals such as Nitrites and BHT are the most common chemicals used in processed foods to make them last longer. Nitrites and BHT are mostly in meat products such as salami and hot dogs because they give these foods their pinkish coloring. “These chemicals are used because they prevent bacteria growth, but they have also been found to increase the risk of cancer (when the nitrites form nitrosamines). BHT – one of the most commonly used preservatives – has been found to cause stomach tumors in animal studies. It is worth noting that the animals in these studies ingested high levels of BHT (much higher than is permitted in processed food), but we still have little information about the effects of this widely used chemical and the studies do not look promising.”

The disturbing part of these chemicals are that they have only been tested on animals, but not humans. This is because the chemicals have not been out on the market long enough to see the side effects on people. It is very concerning that people continue to eat this
“meat” with no nutrients that help your body. Americans are consuming empty calories that make you full, but are horrible for your overall health.

Another chemical is pink slime, which is also a “filler” that is put into meat products. Fast-food companies such as McDonald’s, Burger King, and Taco Bell were using “boneless lean beef trimmings” that they were using for their hamburgers and taco meat. “At McDonald’s, the quality and safety of the food we serve our customers is a top priority,” the company wrote. “At the beginning of 2011, we made a decision to discontinue the use of ammonia-treated beef in our hamburgers. This product has been out of our supply chain since August of last year. This decision was a result of our efforts to align our global standards for how we source beef around the world.” More than likely, McDonald’s would have not changed their pink slime ingredient if they were not exposed, and it is very disappointing to think that the only reason they did away with this pink slime was because they got caught.

V. Pros and Cons for Each Government Assistance Program

Most low SES families are on some form of government assistance program. The government determines if families are eligible for government assistant based off of the following chart.

<table>
<thead>
<tr>
<th>Household Size</th>
<th>Gross Monthly Income (130 percent of poverty)</th>
<th>Net Monthly Income (100 percent of poverty)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>$1,245</td>
<td>$958</td>
</tr>
<tr>
<td>2</td>
<td>1,681</td>
<td>1,293</td>
</tr>
<tr>
<td>3</td>
<td>2,116</td>
<td>1,628</td>
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<td>1,963</td>
</tr>
<tr>
<td>5</td>
<td>2,987</td>
<td>2,298</td>
</tr>
</tbody>
</table>
Gross income means a household's total, non excluded income, before any deductions have been made. Net income means gross income minus allowable deductions. This is the model used to determine if a family gets approved for government assistance.

What they can and cannot buy on SNAP:

Households CAN use SNAP (food stamp) benefits to buy:
- all food intended to be eaten at home. This includes the four staple food categories mentioned earlier as well as nonalcoholic beverages, snack foods, soft drinks, candy, and ice.
- seeds and plants intended to grow food (but not for growing flowers or feeding to birds).

Households CANNOT use SNAP (food stamp) benefits to buy:
- beer, wine, liquor, tobacco, or cigarettes
- foods that are hot at the point of sale
- food to be eaten in the store
- vitamins or medicines
- pet foods
- nonfood items such as tissues, soaps, cosmetics, or other

1. SNAP: Supplemental Nutrition Assistance Program, “Offers nutrition assistance to millions of eligible, low-income individuals and families and provides economic benefits to communities includes CalFresh, EBT, and Food Stamps. SNAP is the largest program in the domestic hunger safety net. The Food and Nutrition Service works with State agencies, nutrition educa-
tors, and neighborhood and faith-based organizations to ensure that those eligible for nutrition assistance can make informed decisions about applying for the program and can access benefits.”

CalFresh Program (Food Stamps) is the California SNAP program. SNAP has many positive aspects, as it is centered on assisting families that are in need. It is a good moral obligation to help people when they are down because you would want someone to do the same for you. “One in eight people are enrolled for SNAP benefits and Half of all American children will receive food stamp benefits sometime before they turn 20”. Allowing them to have money to spend at the grocery store provides family’s access to fresh fruits and vegetables.

The Electronic Benefit Transfer (EBT) is the card that the government loads your money on instead of the traditional Food Stamps. The card is much easier for people on SNAP to keep track of their spending. This program is not without its cons. Although we are not trying to separate low-income families, the United States Government has made EBT too easy to use. A fault of EBT is that it is too consumer friendly to the point that people are not embarrassed to use money they received from the government. Thirty years ago, people in need would use these programs temporarily and not stay on as long because it was harder to cut the Food Stamps and figure out what you could and could not buy. Now, Costco is even excepting EBT cards. As seen on their website, Costco requires a yearly $50 membership fee, which people can now pay for with an EBT card. An additional downside to EBT is that people can buy whatever they want, and it is difficult to regulate what they can be bought because the money is on the EBT card.

Out of necessity, low SES families will most likely buy processed foods because of their competitive prices and it will go a longer way with a family of four. Another major flaw when
using EBT cards is it gives you the option to get cash back, just like a debt card. Since the research supports that low SES individuals experience greater health disparities, it is likely that they will be tempted to use the cash back option to buy alcohol, cigarettes, and/or drugs. The accessibility the EBT system allows users to have their cake and eat it too. Lastly, the biggest con with SNAP is fraud. While one must apply for the program online and enter your social security number and other personal information, it is too easy for someone to purposely work at a minimal rate for two weeks in a row to create the illusion of low pay stubs. More regulation can minimize risk, but regulation cannot make the industry perfect. There will always be that one person who will mess it up for the rest.

   2. WIC: Women, Infants, and Children, “is a Special Supplemental Nutrition Program for Women, Infants, and Children (WIC) provides federal grants to states for supplemental foods, health care referrals, and nutrition education for low-income pregnant, breastfeeding and non-breastfeeding postpartum women, and to infants and children up to age five who are found to be at nutritional risk.” Some good aspects of WIC is that this program assists women while they are pregnant as well to ensure they get the proper diet that a pregnant woman needs. WIC assists women and their children up until the age of five years old. “Half of American children born receive WIC benefits”. This helps women get on their feet and once their children start kindergarten, this makes it easier to obtain a job while their child goes to school. WIC has specific checks that regulate exact items that are on a list that can be purchased.

The items you can buy on WIC are:

• Dairy/Soy
• Breakfast Cereals for Women and Children
• 100% Juice
WIC offers very clear-cut items that have certain limits on sugar and sodium. Another important condition to WIC is that they help with providing breast pumps for women that cannot afford it, but Affordable Care Act does this now. The WIC program is much easier to regulate compared to SNAP. This is because WIC is more detailed in items you can buy, including only healthy food options that ensure women and their children are getting the proper nutrients their body needs. A negative aspect of the WIC program is that breastfeeding women are only allowed to have the pump for a year. Sometimes is not enough time for women to give their baby the proper nutrients they need because they might have a premature child. WIC is a great program in that it also has an educational component that requires the women to stay for a class when they go in to get their vouchers each month. These classes teach these women about insurance options, healthy eating habits for their children, and how to manage their money and vouchers for each month. Overall, WIC has an effective system and should not change the way they regulate their program.

3. Head Start: “Head Start is a federal program that promotes the school readiness of children ages birth to five from low-income families by enhancing their cognitive, social and emotional development.” Some pros to Head Start are that they not only provide schooling for these children, but they also ensure that the parents are aware of health care issues and social
needs for their children. State funded preschools only provide the schooling, without the extra needs and issues that the children and parents' needs to know. “Studies here found that preschool not only improved children's learning, but also had positive ripple effects for years to come, including increased lifetime wages, fewer criminal convictions, higher high school graduation rates, and increased home ownership.”

Head Start gives low-income children the opportunity to succeed in life. The focus of this program is a healthy start with their early habits in life that really sets them up for the rest of their life. As far as food options, Head Start also provides only two options of water or milk with their lunches. “Now, rather than serving soda, sports drinks, or flavored milk, children are provided water and unflavored milk. Children who are 4 and 5 years old are allowed 100 percent juice twice a month”. Head Start that assists low SES children to have a better chance to make positive lifestyle choices later in life. Some deceptions with Head Start are that the teachers are underpaid. “Should preschool instructors be required to have a BA in early childhood education? What would happen if preschool teachers were paid more? (Right now, the average preschool teachers’ pay is below that of kindergarten teachers and even janitors and cooks.)”

Head Start teachers should have bachelors because to get your degree in early childhood development requires that you not only have to take curriculum classes, but also childhood development classes. Requiring a bachelors degree would solve the issue of not getting paid enough, and would provide more qualified teachers to better assist the early development of these children. Head Start is a credible preschool program for low-income families to help with their child’s early developmental process and learning healthy habits at a young age.
VI. Conclusion

A. What solutions can we promote to decrease obesity among low-income children?

1. Developing One Universal Program for Government Assistance

Developing one all-encompassing program for government assistance program would make it easier to regulate under one umbrella. This universal program would be structured like WIC, with specific vouchers used at grocery stores. Vouchers will provide accountability for the items you can buy. The issues with the SNAP/CalFresh Program is that the EBT card is so easy to abuse. Giving people the option to get cash back is not acceptable. EBT holders should only be allowed to get groceries that will be beneficial to their family’s bodies. WIC is very good at regulating what you can and cannot buy and this is how the new all government assistance program should be. If the government is giving people money for food, they should be able to tell the people what they should and should not eat. If you do not want the government telling you what to eat, then you do not have to go on government aid. This will also promote people from being on government assistance for long periods of time.

2. How many times do you crave the food you see on t.v.?

“Low-income youth and adults are exposed to disproportionately more marketing and advertising for obesity-promoting products that encourage the consumption of unhealthful foods and discourage physical activity (e.g., fast food, sugary beverages, television shows, video games)”.

Regulating advertisements on television so children are not influenced by what they see on the television. While it may be the parents’ responsibility to control what their child eats, it is the government’s duty to ensure our safety, protecting and preventing serious health problems such as diabetes or heart disease later in life. Federal Communications Commission (FCC)
guidelines should be put into place to not advertise between the hours of 6:00am to 9:00pm. This would be similar to provocative advertisements that are seen after the hours that children should be in bed. If fast-food and junk food advertisements were banned it would decrease the level of childhood obesity. “Quebec has one of lowest childhood obesity rates in Canada and for the past 32 years they have banned fast food companies from advertising to children in print or electronic media in Quebec”.

Companies bring in experts to manipulate advertisements so children are more interested in their product and ask their parents to buy it for them.

Junk food does not provide children with any nutrients that sustain their little bodies and minds needed to help them develop into strong, healthy adults. Banning commercials that advertise junk food and snacks full of sugar would lower soda and fast-food intake for children, which would make children less prone to becoming overweight or developing diabetes or heart disease when they get into their adult years. It is imperative that the FCC puts out public service announcements that provide statistics on childhood obesity. When public service announcements go out during elections people are easily persuaded to vote in that candidates favor, and electing people in office that supports this ban would further underscore its acceptance into law and policy.

**B. Make Nutrition a Required Course like Math and English**

Nutrition is an important part of learning but yet the class is not offered until college level where children are particularly vulnerable because most students have already learned bad eating habits that they learn from their parents. What parents buy for the household is what the children eat. There needs to be a required class for every grade that they must take and pass to demonstrate learning outcomes on what is good and what is bad to eat. These classes should also edu-
cate our youth on how to read nutrition labels, serving size, sugar and sodium intake, and other healthy practices.

Teachers should conduct activities with students on alternative healthy snack options that are not empty calories with trans fat with high sugar and colored dye. Students should also be taught what is actually in fast-food and processed food items. One might argue that without the education, children are naïve to the fact that they are consuming empty calories that their bodies do not need. While it may make you full, processed food does not give your body any nutritional value. Based on the health disparities associated with obesity, people are unmotivated and uneducated when it comes to healthy eating habits. This issue should be a priority of this nation because it can affect you for the rest of your life. Healthy eating is not just a choice, it is more, it is a way of life.

C. What will happen if our eating habits do not change?

When adults have poor eating habits, they pass them along to their children. A prime example of this was a recent television ad. “In this commercial, a little boy mimics his father and follows him around the house. They sit down to drink orange soda. The mother notices and replaces their drinks with Nestle Pure Life bottled water. Replace soda with water can cut 50,000 calories a year”.65 What you do as a parent affects what your children do. This is why it is so essential to present healthy eating and drinking habits to your children at a young age so they do not develop and carry with them unhealthy habits as an adult. “Drinking just one soda a day increases an adult's likelihood of being overweight by 27% and a child’s by 55%, according to a World Health Organization-commissioned study published last year in the British Medical Journal.”66
Making sure we show our children proper healthy eating habits ensures they are set up for the rest of their life and will decrease their chances of childhood obesity. These unhealthy habits can lead to serious health consequences such as type 2 diabetes, heart disease, and early mortality rates. Type 2 diabetes runs in families, and this is, in part, due to children learning poor habits — eating a poor diet, not exercising — from their parents. But there is also a genetic basis.⁶⁷ Being overweight puts one at a higher risk of developing type 2 diabetes. Eating too much sugar is also a way one can develop diabetes. “Just one 12-ounce can of regular soda has about 150 calories and 40 grams of carbohydrate. This is the same amount of carbohydrate in ten teaspoons of sugar!”⁶⁸ Most overweight people drink drinks with large quantities of sugar such as soda, fruit punch, sweet tea, and sports drinks. It is advisable to switch to water or unsweetened tea. If they did this, along with being active on a daily basis, it would reduce the chance of developing diabetes.

D. Initiative

I would sponsor SB 1000, as well as make an initiative that would prohibit children to buy processed food. It would be implemented similar to alcohol or cigarette laws. You must be 18 years or older to purchase processed food. This initiative would reduce children and teenager's sugar intake for the day. Schools would also have a soda and snack vending machines ban and replace soda and sugary snacks with the dried fruit and water vending machines. Grocery stores would have to begin checking I.D.’s when people buy processed foods because you must be 18 years old to buy it. The hope of this initiative would cause parents to be more conscious of not feeding their children sugar and empty calories.
The primary reason for developing this drastic initiative is because childhood obesity in low SES households is such a serious epidemic that requires our national efforts. We can work together to make this positive change in the world, one snack at a time.

With implementing an all encompassing program such as WIC, providing nutrition class as a public school requirement, and this get SB 1000 Initiative passed, our nation can get on the right track and have a bigger, brighter future and decrease the obesity epidemic among children in low-income families. After all, you are what you eat.
Endnotes


