

Program and Policy Design Track Paper

Addressing Socioeconomic Disparities: Strategies for Promoting Access to Healthy Foods and  
Improving Health Equity in Washington State

*Greens For All Policy*

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## Problem Identification

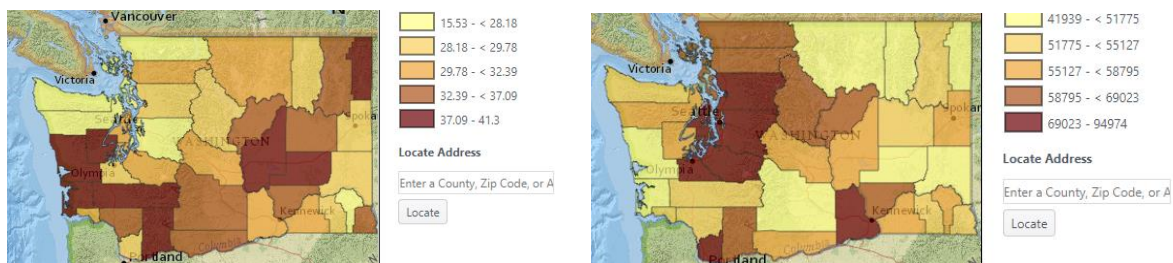
Obesity has become an increasingly alarming issue all around the world. Washington State is no exception to this. According to WTN data, the percentage of adults in Washington with a body mass index (BMI) above 30 has risen from 26.64% in 2011 to 28.89% in 2021. A BMI above 30 indicates obesity.

A balanced diet has been shown to prevent obesity and other diet-related diseases. Unfortunately, the healthy foods required for sustaining our well-being are estimated to be twice as expensive as their unhealthy counterparts on a per-calorie basis. Foods like chips, sodas, and candies are considerably cheaper and meet calorie requirements far faster than healthy foods. Such foods are also filled with high quantities of sugar, sodium, and fat which give them an addictive quality. It is very easy to overconsume, and doing so will lead to obesity, which further spirals into further health complications like diabetes and cardiovascular disease. According to the American Heart Association, obesity-related type 2 diabetes accounted for 90–95% of all diagnosed diabetes in adults. Diabetes and insulin resistance are good indicators of cardiovascular morbidity and mortality. They are also independent risk factors for death in patients with heart failure.

Unhealthy eating leads to a drastic slowing in metabolism over time. The fats in many junk foods take longer to digest as opposed to the natural carbs and fibers found in fresh produce. Constant metabolic stress can lead to the progressive deterioration of the myocardial structure of the heart. The myocardial structure is the muscle layer of the heart, and as it deteriorates, heart failure becomes a likely fate.

Washington residents have a right to live a long, healthy life, and eating healthy is a big part of that. The biggest issue is that of access. Healthy foods are more expensive, meaning that low-income households cannot consistently afford nutritious foods. Hence, low-income families are more susceptible to diet-related diseases.

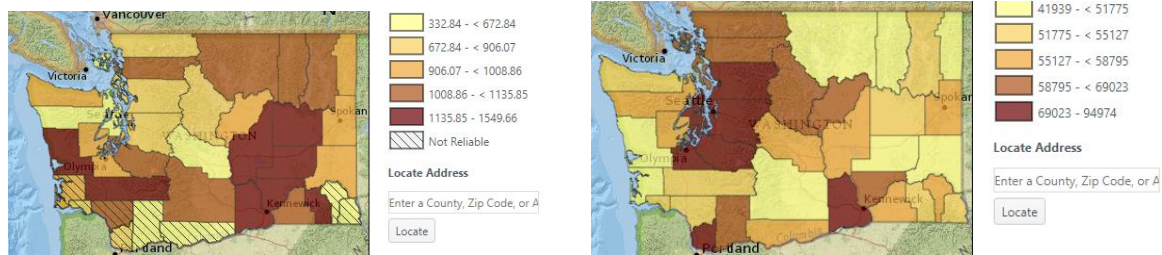
*Figure 1: Comparing BMI and Median Household Income in Washington*



The map on the left displays the distribution of median household income, with lighter hues representing lower income levels. The map on the right illustrates the distribution of average BMIs across Washington State divided by counties, with darker shades indicating higher BMI levels. When analyzing the relationship between household income and BMI, there is a close link

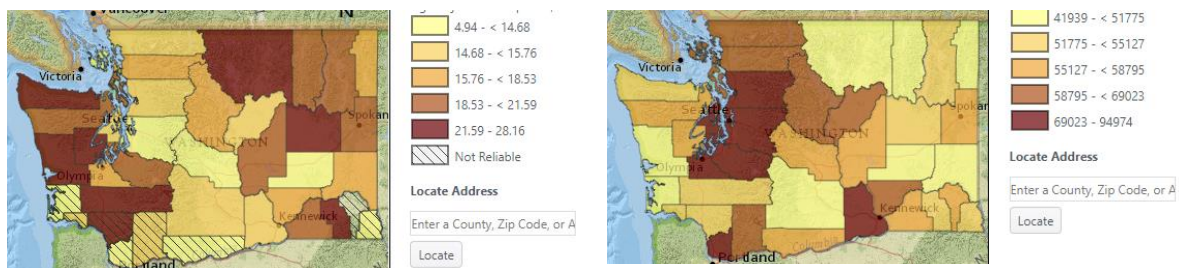
as regions with lower household incomes tend to have a higher average BMI. This observation adds to our problem statement which reveals the impact of socioeconomic disparities on health outcomes. Specifically, it highlights the challenges faced by lower-income individuals in accessing nutritious foods, which consequently leads to higher BMIs and increased risks of obesity, heart disease, and diabetes.

*Figure 2: Comparing Diabetes Related Hospitalizations and Mean Household Income in Washington*



The map on the left displays the distribution of median household income, with lighter hues representing lower income levels. The map on the right illustrates the number of diabetes-related hospitalizations per 10000 people across Washington State divided by counties, with darker shades indicating higher BMI levels. When analyzing the relationship between household income and diabetes-related hospitalizations, there is a high correlation as regions with lower household incomes tend to have higher diabetes-related hospitalizations. This relates to the impact of socioeconomic differences on health outcomes. As lower-income individuals eat unhealthy food it leads to health conditions like diabetes, and we can see a strong association on the map. Also, lower-income individuals often struggle to access preventive health care to manage chronic conditions like diabetes due to financial limitations.

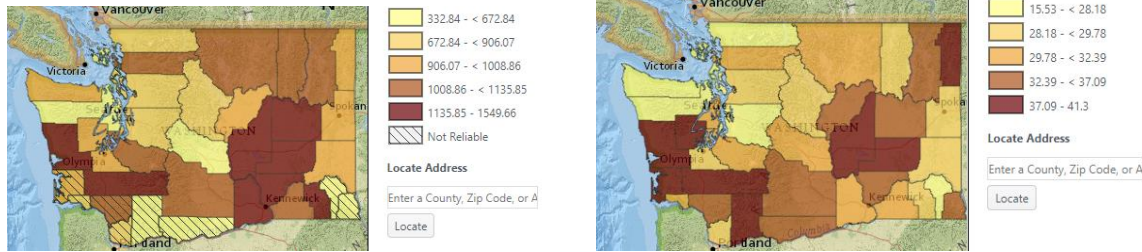
*Figure 3: Comparing Heart Attack Hospitalizations vs Median Household Income in Washington*



The map on the left displays the distribution of median household income, with lighter hues representing lower income levels. The map on the right illustrates the number of heart attack hospitalizations per 10000 people across Washington State divided by counties, with darker shades indicating higher BMI levels. When analyzing the relationship between household income and diabetes-related hospitalizations, there is a clear connection as regions with lower household incomes tend to have higher heart attack hospitalizations. This relates to the impact of socioeconomic differences on health outcomes. As lower-income individuals eat unhealthy food

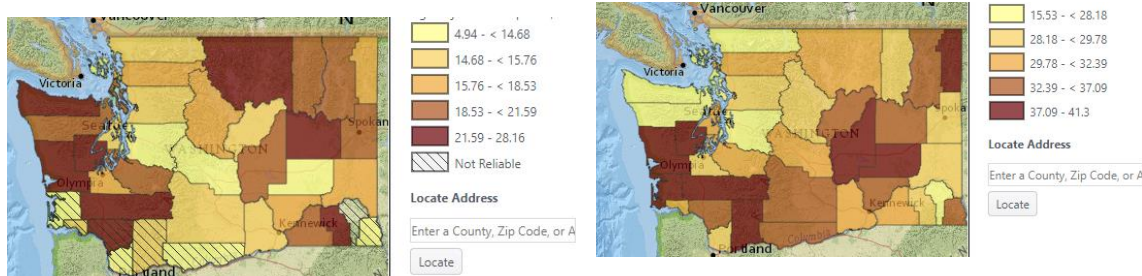
it leads to health conditions like diabetes, and we can see an obvious link on the map. Also, lower-income individuals often struggle to access preventive health care to manage chronic conditions like diabetes due to financial limitations.

*Figure 4: Comparing Diabetes Related Hospitalizations vs BMI in Washington*



The map on the left illustrates the distribution of average BMIs across Washington State divided by counties, with darker shades indicating higher BMI levels. The map on the right displays the number of diabetes-related hospitalizations with darker hues representing more cases admitted. When analyzing the relationship between household income and BMI, there is a clear correlation as regions with lower household incomes tend to have a higher average BMI. Diabetes is closely linked to higher BMI, as obesity significantly increases the risk of developing type 2 diabetes. Excess body weight leads to insulin resistance and impaired glucose metabolism. Additionally, limited access to healthy food options adds to this relationship, as individuals with lower socioeconomic status often face barriers to getting nutritious foods, which leads to health conditions like obesity and diabetes.

*Figure 5: Comparing Heart Attack Hospitalizations vs BMI in Washington*



The map on the left illustrates the distribution of average BMIs across Washington State divided by counties, with darker shades indicating higher BMI levels. The map on the right displays the number of heart attack hospitalizations with darker hues representing more cases admitted. When analyzing the relationship between household income and BMI, there is a clear correlation as regions with lower household incomes tend to have a higher average BMI. Heart attacks are strongly associated with higher BMIs, as obesity significantly increases the risk of cardiovascular disease. Excessive body weight contributes to conditions such as hypertension, high cholesterol, and diabetes, all of which are major risk factors for heart attacks. Limited access to healthy food adds to this relationship, as individuals with poor dietary habits are more likely to develop obesity and its associated cardiovascular problems.



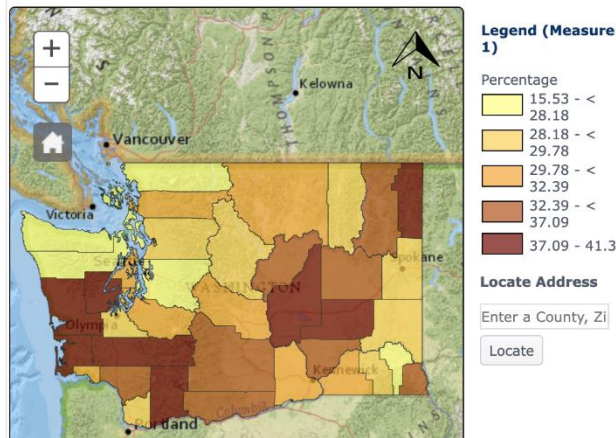
Moreover, obesity-related diseases hit marginalized communities harder, making health disparities worse and widening the gap between rich and poor. Obesity also hurts the economy by making people less productive and more likely to miss work, which puts pressure on local economies and slows down community development. So, it's really important to tackle the reasons behind differences in BMI to improve health and economic well-being for everyone in Washington.

## Recommendation

Washington State implemented the Fruit and Vegetable Incentives Program (FVIP) in 2015 which aims to reduce the cost of healthy foods for low-income families. Currently, shoppers using the Supplemental Nutrition Assistance Program (SNAP) are only able to take advantage of the FVIP at select grocery stores in the state. However, the percentage of adults in Washington with a Body Mass Index of 30 or greater has increased from 26.33% in 2015 to 28.45% in 2019. The obesity rate has gone up since the introduction of the FVIP and the inverse relationship between lower household income and higher obesity rates remains as evidenced by the graphs below. Legislation must be introduced to reduce the cost of healthy foods for all residents, not just those on SNAP or those living near the select 120 grocery stores or farmers' markets.

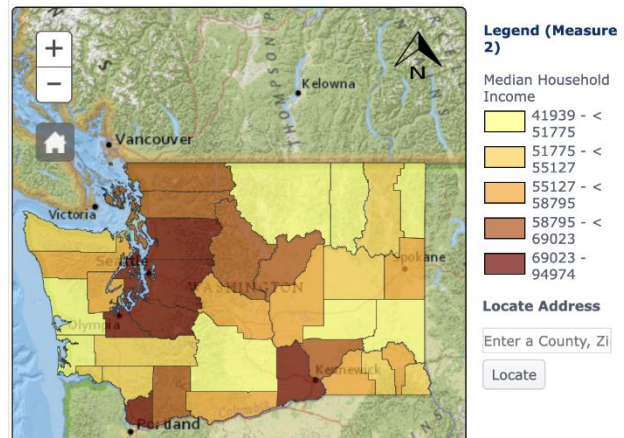
Percent of adults who who have a Body Mass Index of 30 or greater

Geography: County, Time period: 2015-2019



Median Household Income

Geography: County, Year: 2015-2019



One possible way to provide equal access to healthy foods is for Washington State to provide local farmers with grants and subsidies to lower the cost farmers incur when growing and transporting their crops. This allows for more affordable and healthy foods to reach the market, especially in areas with lower household incomes.

An alternative solution is to restrict the sale of junk foods by introducing a tax that increases the cost of unhealthy items, maximizing the effect of the FVIP. This simultaneously encourages low-income households to purchase fresh produce while inhibiting their ability to spend on unhealthy food. Ideally, there should be subsidies for local farmers to reduce their out-of-pocket production

costs and a tax on unhealthy foods like potato chips, sodas, candies, and other processed foods. Implementing both initiatives would make healthy food more accessible to all members of society, regardless of socioeconomic status. It is estimated that nutritious foods are twice as expensive as junk foods on a per-calorie basis. We must counteract this by reducing the cost of healthy food while increasing the cost of unhealthy food.

## Social Significance

The relation between obesity rates in adults and median household income sheds light on various socioeconomic disparities. This impacts marginalized populations, worsening existing inequalities and widening the gap in health outcomes between socioeconomic groups. Furthermore, the economic consequences of obesity, such as reduced productivity, perpetuate social inequalities by straining local economies and disrupting community development efforts.

BMI is an indicator of an individual's physical well-being. All human beings have a right to be in good health, but existing inequalities prevent equal access to the necessary means to a good well-being. In 2011, 26.64% of Washington adults were obese, but that number increased to 28.89 in 2021. Obesity is becoming a bigger issue, and we must prevent it from affecting the lives of more Washingtonians. We must address accessibility issues through policies that create equitable environments where all individuals have access to healthy lifestyles. This not only improves individual health but also creates a more inclusive community where everyone has the opportunity to lead healthy lives.

## Impact

Lowering the cost of nutritional foods and increasing the cost of junk foods should encourage low-income households to purchase fresh produce. If cost is truly the biggest barrier, low-income households will be pushed toward buying healthy food. This enables a healthier lifestyle, preventing diseases like obesity, diabetes, and other diet-related conditions.

Research shows that a healthy diet rich in natural foods can empower individuals to improve their education and employment prospects. Individuals who eat healthier foods have more energy, better focus, and improved overall health. This leads to increased productivity and better performance in school or at work, ultimately opening up more opportunities for advancement. Addressing the barriers to accessing nutritious food by making it more affordable in underserved areas will improve health outcomes and break the cycle of poverty by providing individuals with the resources they need to thrive and progress in society.

Eating healthy has been shown to reduce susceptibility to type-2 diabetes and heart disease while improving bone strength and energy levels.

## Equity

Healthy foods are more expensive on a per-calorie basis than their unhealthy counterparts. As a result, low-income families buy cheaper goods that meet their daily calorie needs. However, unhealthy foods are filled with fats, sodium, and sugar that provide little nutritional value but also are addictive. People consume more than they require, which is what makes such foods appealing and addictive. As a result, low-income families purchase more unhealthy foods at lower cost, putting them at risk for diet-related diseases like obesity and diabetes. In counties with higher household incomes, there are fewer adults with obesity and fewer diabetes hospitalizations. Both data points show a strong correlation to limited access to healthy foods.

Several racial equity problems are posed by the issue of equal access to healthy foods. Firstly, racial minorities are more likely to experience lower household incomes due to systemic barriers such as discriminatory employment practices, unequal access to quality education, and housing discrimination. As a result, they have greater challenges in gaining the necessary wealth to purchase healthy food, leading to higher rates of obesity and other health conditions.

Also, racial minorities continue to face discrimination and bias within the healthcare system. Studies have shown that racial minorities are less likely to receive appropriate care for chronic conditions like diabetes and cardiovascular diseases, which can contribute to poorer health outcomes and increased healthcare costs. The combined lack of access to healthy foods and proper healthcare means that low-income families are more susceptible to dangerous diet-related health conditions.

Nutritious food is a basic necessity that all individuals should have access to. Anyone should be able to live a healthy lifestyle, not just those who can afford it. Lowering the cost of healthy food while increasing the cost of unhealthy food encourages all families to put nutritional items on their plates. Doing so would greatly benefit the health of all Washingtonians, but especially those who have historically been deprived of quality meals.

Our solutions can improve the health of marginalized communities and support local farmers, many of whom are from minority groups. By ensuring that everyone has fair and equal access to healthy food, we can rectify structural injustices that lead to health problems in different racial groups. Our proposed policies aim to provide all Washington residents with equal access to nutrition with the hope that similar policies will be implemented to make society as a whole free and fair for all.

## Reflection

We spent a lot of time discussing the topic for which we wanted to propose a policy change. Ultimately, we settled on the topic of limited access to healthy food due to the increase in reports of a worsening obesity epidemic. We figured that Washington State must be seeing similar issues

with obesity and other diet-related diseases. We had a shared belief that a lack of access to healthy foods was driving these epidemics, and we came to a consensus that legislature was needed to make healthy foods more accessible. But how? When we identified that healthy foods were more costly than junk food, we knew that our policy proposal had to make fresh produce less expensive than processed foods. Ultimately, we envisioned a future where people won't have to compromise on their health because they can't afford necessities like healthy food.

Our biggest challenge was selecting the topic we wanted to focus on because we had many choices with varying degrees of severity. However, something as basic as access to healthy food impacts many health outcomes, not just BMI and obesity. While our focus was indeed on diet-related diseases as indicated by BMI, eating healthy impacts many facets of life. We felt that changing what people put into their bodies would have the greatest possible impact on community health. This belief was further reinforced by the data we saw on the consistent rise of diet-related issues in Washington residents.

After we finished our project, we learned that despite attempts at policy reform, many inequities still exist and that it is hard to create legislation that covers every individual. Our policy proposition is still abstract, but we tried our best to emphasize the need for subsidizing local farmers' produce and taxing unhealthy foods that compromise the health of Washingtonians. While researching for this project, we saw the terrible effects of junk food on individual health, and we were once again empowered to address this issue.

Overall, the process of working on this project shed light on existing socioeconomic disparities that encouraged us to propose a policy change that could bridge these gaps.



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