Does Prevalence of “Healthier” Restaurants Affect Obesity Rates?

Introduction

Most people are familiar with the statistic that over one third of American adults are obese [1]. The National Restaurant Association [2] and The National Restaurant Association [3] have both found that health and wellness, and the opportunities they provide, are important factors in the changing food and beverage industry. It is reported that more than 10 counties have no LiveWell restaurants, and in the country with the highest percentage, LiveWell restaurants still only account for 19 percent of all restaurants. Second, although the LiveWell program is a step in the right direction, the criteria to be considered a LiveWell restaurant can be met without the restaurant making a serious change to be healthier. A restaurant has to offer one full meal that meets certain nutritional standards, and another side that meets nutritional requirements, promote these foods, and provide nutritional information. These are not onerous requirements, and even if all restaurants were to make these changes, it might not significantly affect the eating habits of their customers, or not affect them enough to change the increase in obesity rates. Third, I used data at the county level because that was the smallest unit for which some of the information was available. All of the factors I am looking at have the potential to vary widely within counties, and an analysis that looks at smaller units might be able to pick up subtler patterns. Finally, the LiveWell program is relatively new, and it might be too early to tell whether they are impacting obesity rates. The data clearly illustrate the positive correlation between physical inactivity and obesity, and the inverse relationship between median income and obesity, which is almost as strong.

Methodology

The restaurant data comes from Reference USA. I used the latitude and longitude for each restaurant location to plot the points in ArcGIS. I then selected the LiveWell restaurants from the general restaurants dataset and exported this selection. I used spatial joins to calculate the number of LiveWell restaurants and total restaurants in each county. I then used the field calculator to find the percentage of LiveWell restaurants in each county. I joined the data on obesity and physical inactivity, which came from the Centers for Disease Control and Prevention, and the data on obesity and physical inactivity, because these are potentially confounding factors. The positive correlation between physical inactivity and obesity is well known, as is the positive correlation between physical inactivity and obesity, because these are potentially confounding factors. The positive correlation between physical inactivity and obesity is well known, as is the

Results

In comparing Figures 1 and 2, there does not appear to be a relationship between the percentage of LiveWell restaurants and obesity prevalence. There is a visible relationship between physical inactivity and obesity prevalence.

Conclusion

There are several reasons why an inverse correlation between LiveWell restaurants and obesity prevalence might be not be visible. First, the number of LiveWell restaurants is quite low. More than 10 counties have no LiveWell restaurants, and in the county with the highest percentage, LiveWell restaurants still only account for 19 percent of all restaurants. Second, although the LiveWell program is a step in the right direction, the criteria to be considered a LiveWell restaurant can be met without the restaurant making a serious change to be healthier. A restaurant has to offer one full meal that meets certain nutritional standards, and another side that meets nutritional requirements, promote these foods, and provide nutritional information. These are not onerous requirements, and even if all restaurants were to make these changes, it might not significantly affect the eating habits of their customers, or not affect them enough to change the increase in obesity rates. Third, I used data at the county level because that was the smallest unit for which some of the information was available. All of the factors I am looking at have the potential to vary widely within counties, and an analysis that looks at smaller units might be able to pick up subtler patterns. Finally, the LiveWell program is relatively new, and it might be too early to tell whether they are impacting obesity rates. The data clearly illustrate the positive correlation between physical inactivity and obesity, and the inverse relationship between median income and obesity, which is almost as strong.

Sources