This column is written by a scientist, not a politician. I have never run for elected office. Heck, I didn’t even get elected to the National Honor Society at Big Foot High School, Walworth, WI, class of 1970—despite finishing 6th in a class of 150 students. When I was asked by my aunts and uncles why there were lots of lower ranking students who were in the National Honor Society, but not me, I explained that it was a popularity contest, and I was not popular.

As a scientist, I abide by scientific principles. Here is how it works. I first pose a question: for example, does providing calorie content labels at a grocery store deli cause consumers to consume fewer calories? It is certainly a plausible hypothesis that consumers will not choose fried chicken and biscuits with gravy from the menu if they are told that the selection contains 2,000 calories.

A politician, for example Michael Bloomberg (former mayor of New York City), will say that information sets us free and that when calorie contents are listed at the grocery store deli consumers will be shocked to learn that fried chicken with biscuits and gravy is high in calories and will instead choose celery sticks without ranch dressing or perhaps forgo eating altogether because of their shock that fried chicken with biscuits and gravy is high in calories.

In contrast, the scientist writing this column will say let’s look at the body of evidence to assess the question. This involves going to the scientific literature and examining studies that have measured the effects of calorie information on consumer eating behavior.

First, let’s examine what we know about eating behavior. Food is front and center in Maslow’s hierarchy of needs. Humans need to eat enough food to live and the right assortment of foods for optimal health. Although people eat foods for many different reasons, the most compelling reason is the requirement for calories, nutrients, and other substances supplied by foods for growth and health.

Calories are most important during growth and development in childhood, so families make sure their children are fed. You would think that food security and wealth would be linked to obesity, but the opposite is true—food insecurity and low income are linked to obesity. The scientist would find this puzzling, except the scientist knows that eating behavior is very complicated. Food choices are based on culture, access, taste, and price, as well as many other factors.

For example, when do you typically overeat? Holidays, celebrations, football games, boredom, buffets, and hot dog eating contests are some common occasions. There are many specific occasions when we overeat, and having a billboard with calorie counts for nachos or ice cream cake will likely not drive food consumption behavior in these instances. As dietitians know, it is our everyday food consumption and exercise habits that pay off for better health, not the once per year birthday cake or Super Bowl party snacks we consume.

What kinds of scientific studies support our knowledge in this area? Studies on food choice are generally suspect because they usually need to be conducted in a controlled environment to answer a specific question. Although studies in the complicated real world tend to be criticized for lack of controls, free-living studies conducted in the real world of fast-food restaurants provide the most useful data we can bring to this discussion.

The results of the limited studies conducted in this area are amazingly consistent, showing that calorie content labeling has no impact on food choice. Elbel et al. (2) conducted a natural experiment in the community in low-income areas of New York City before and after mandatory labeling began in New York City in 2008. Study restaurants included four of the largest chains located in the area: McDonald’s, Burger King, Wendy’s, and Kentucky Fried Chicken. A total of 349 children and adolescents aged 1–17 years who visited the restaurants were surveyed, and 90% of the subjects were from racial or ethnic minority groups. The authors found no statistically significant differences in calories purchased before and after labeling. Many adolescents reported noticing calorie content labels after their introduction, and a few said they considered the information when ordering. Yet, there was no evidence that labeling influenced adolescent food choice or parental food choices for their children in this population.

Downs et al. (1) examined the effect on food purchases of adding recommended calorie intake per day or per meal statements to the mandated calorie information posted on chain restaurant menus. This study was also conducted before and after New York City implemented calorie posting on chain restaurants menus in 2008. The study measured the food intake of adult lunch customers at two McDonald’s restaurants. They found that posting calorie benchmarks had no direct impact, nor did it moderate the impact of calorie content labels on food purchases. The recommendation instead appeared to promote a slight increase in calorie intake, which might be attributable to increased purchases of higher calorie entrees. The authors concluded that the posting of calorie information does not decrease calorie consumption and, therefore, will have no impact on the obesity epidemic.

Why then does a recent FDA regulation stipulate that many places that sell food must now provide calorie counts for said
food? The Affordable Care Act of 2010 mandates that calorie labels be required in chain restaurants. The FDA has taken an aggressive approach to this mandate and broadened the law to include movie theaters, vending machines, convenience stores, grocery store delis, and even bars. The Food Marketing Institute (FMI) has estimated that complying with this regulation will cost $1 billion in the first year alone. It also suggests that requiring calorie counts on all foods purchased in grocery store delis will limit seasonal produce or fresh food offerings.

So why, you may ask, would the FDA move ahead with this policy when the science does not support the theory that listing calorie counts will help consumers choose the exact calories they need and avoid obesity? The answer is politics, my dear Watson, not science. Despite the evidence-based review lens that should be used to ensure that food policies are “science-based,” we are choosing instead to have politicians decide arbitrarily that we need help selecting the foods we consume. Although the science suggests calorie content labeling is unlikely to impact food purchasing decisions, no doubt the higher food costs will help low-income consumers eat less food.

The politics of driving food choice continues to spiral out of control in the United States. A tax on sugar-sweetened beverages (SSBs) was recently passed in Berkeley, CA. This is not too surprising because the community is one of the wealthiest in the United States. It also is quite likely that there are few SSBs sold in Berkeley, so the tax revenue will be quite small. As usual, the focus is on first-world problems. Low-income families have bigger problems than their government spending valuable administrative efforts to create a tax structure for collecting taxes for all SSBs consumed in Berkeley. Will I have to pay a tax if I purchase an SSB at a University of California-Berkeley sporting event? Perhaps I should invest in the convenience store just over the city line from Berkeley that can service the SSBs needs of customers who prefer not to pay an SSB tax.

I am reminded of my youth in southern Wisconsin, where residents who wanted to purchase yellow margarine had to make a trip to Big Foot, IL, to buy the banned, evil margarine. This provided great economic development for Big Foot for the duration of the silly ban on colored margarine in Wisconsin. This is America, so silly rules are meant to be broken, and stores just over the line in Illinois did a bang-up business in yellow margarine. In addition, Wisconsin still had a market for yellow dyes, so you could mix up your own batch of yellow margarine, yummy.

I like to win, so as a scientist I hope science prevails in nutrition policy. But while reading the paper by Alfred Harper on “Killer French Fries,” I am reminded that ever since the Dietary Goals of 1977 were published the government has decided that they, elected politicians with law degrees, are the scientists, and we all should support science policy before its time (3). The recent FDA requirement to label all foods with calorie counts suggests that even the usually rigorous scientific support used in FDA decisions has become political.

Providing dietary guidance is challenging, and we should not accept nutrition policy that is not supported by science (5). I quote Harper and the National Research Council Food and Nutrition Board from Toward Healthful Diets (4) and their reaction to dietary goals they found were not supported by science:

The Board expresses its concern over excessive hopes and fears in many current attitudes toward food and nutrition. Sound nutrition is not a panacea. Good food that provides appropriate proportions of nutrients should not be regarded as a poison, a medicine, or a talisman. It should be eaten and enjoyed.

Thanks to the new regulations, when you are eating and enjoying your chicken and biscuits with gravy you should appreciate that the item costs a bit more because it now must have its calorie content listed at the point of purchase. Since I am stopping by the grocery store deli for takeout later, it is likely I won’t eat it until I get home. Maybe the next administration will require that I must be given a mobile app in which this calorie information can be loaded so I can check my calorie intake after I have my meal at home. How much more government intervention is needed before it spoils my dinner and I get skinny? At least this law will keep my nutrition graduates employed.

References