Government Nutritional Nudges: Hope Over Reality

Michael L. Marlow, Ph.D.

Introduction

Because individuals frequently make decisions that harm themselves, behavioral economists believe them to be irrational. In their book Nudge: Improving Decisions about Health, Wealth, and Happiness, Richard H. Thaler and Cass R. Sunstein argue that government “choice architects” can nudge individuals away from numerous unconscious and irrational decisions that stem from a whole host of psychological, social, cognitive, and emotional factors. Thaler and Sunstein are very enthusiastic about nudging people toward weight loss. Consider, for example, “It would be quite fantastic to suggest that everyone is choosing the right diet, or a diet that is preferable to what might be produced with a few nudges.”

Nudge theorists depart from mainstream economics in their belief that individuals frequently and unintentionally undertake personal destructive behaviors such as overeating. These elitists, however, rarely entertain the question of why they themselves are somehow immune to the various cognitive problems that beset the rest of us. This vision of cognitive superiority leads nudge theorists into believing that they can (and should) steer/nudge mindless individuals into healthful and wholesome behaviors. This misguided mindset explains the various failures of government nutritional nudges discussed here.

Nudging Food Choice

Nudge theorists argue that consumers often suffer from persistent self-control problems. For example, an overweight person finds it hard to resist doughnuts but still wants to lose weight and improve his long-term health. Mandated nutritional labels are believed to nudge consumers with self-control problems toward greater understanding of short-term and long-term effects on their health. More ambitious policies that get individuals to commit to goals (e.g., skipping desserts), coupled with the risk of losing money (when goals are not met), are other proposals believed to nudge individuals toward weight loss.

The effect of menu calorie labeling and self-control on young adults’ food and beverage choices is the subject of a recent study, which showed that calorie labeling increased the likelihood of choosing lower-calorie food options among those with high self-control, but not among those with low self-control. This moderating effect was not revealed for beverage choice.

Bias toward the status quo is believed to lead individuals to stick with what they have rather than search for better alternatives. Resistance to ordering lower-calorie salads in place of the traditional French fries with hamburgers is an example. A nudge might be developed to counteract the automatic coupling, as by requiring people to order French fries separately, and at added cost.

Other changes to default options might include downsizing hamburgers from one-third to one-quarter pound, reducing drinking glass capacity from 16 ounces to 12 ounces, and removing the cheese from cheeseburgers. One might also store high-calorie foods in less-convenient locations (such as basements or top cupboards), not leave serving bowls on the dinner table, and use smaller spoons.

The effect of environmental cues is another research area. One study of vending machines examined whether posters with a health-evoking image influenced sales of “healthy” foods. Posters associated with health increased “healthy” food purchases, but those associated with hedonism increased “unhealthy” food choices. Another study found that applying Giacometti-like sculptures (i.e., skinny) as environmental cues facilitated dieting by effortlessly reducing motivated eaters’ “unhealthy” food intake of potato chips.

Some experimental research bolsters the nudge theorists’ case on choice architecture. One study found that slight changes in the accessibility of foods in a cafeteria salad bar reduced intake by 8–16 percent. Making food slightly more difficult to reach (varying proximity by 10 inches) and changing sizes and accessibility of serving utensils were two such changes. Another study found that moving healthier foods to the convenience line, where unhealthy foods were usually placed, increased sales of “healthy” foods by 18 percent, but decreased “unhealthy” food sales by 28 percent.

Mandated nutritional information disclosures are believed to promote weight control. The federal Nutrition Labeling and Education Act of 1990 (Public Law 101-535) required mandatory “nutrition fact panels” on most packaged foods, but exempted restaurants. Ground meat and poultry were required to display nutrition labels in 2011. Since 2008, various cities, counties, and states have enacted mandatory posting of calorie and other nutritional information by some restaurants. New York City, for example, implemented mandatory calorie labeling in July 2008. The Patient Protection and Affordable Care Act of 2010 required that beginning Dec 1, 2016, restaurants post calorie...
information for standard menu items on menus and menu boards, and include a succinct statement about suggested daily caloric intake.

**How Effective Are Nutritional Nudges?**

Small changes in choice architecture (e.g., changing plate, bowl, cup and utensil sizes) allow people to “effortlessly control their consumption and lose weight in a way that does not necessitate the discipline of dieting,” according to researcher Brian Wansink.\(^{13}\) However, a review of 12 studies finds that studies are generally of short duration, have questionable methodology, and are not conducted in naturally occurring environments.\(^ {14}\) So, despite enthusiastic claims that altering choice architecture can effectively nudge consumers to lose weight, studies often do not clearly support such claims.

Consider a few examples in which altering choice architecture failed to live up to the expectations of nudge theorists. One study conducted a controlled laboratory experiment to investigate whether a standard (27 cm) plate size vs. a large (32 cm) plate influences composition of a meal. The study tried to gauge the total meal energy of 83 participants invited to serve themselves a lunch from a buffet containing 55 items.\(^ {15}\) Plate size had no significant effect on the total energy of the meal, although participants using a large plate served themselves significantly more vegetables. This result reinforces an earlier study in three lab experiments that found that altering plate sizes had no significant effect on energy intake at meals.\(^ {16}\) Participants made significantly more trips to the buffet when they were given the smallest plate in one of these experiments.

Mandated nutritional labels also fail to achieve the promised effects. Communication of nutritional attributes of food, by businesses or governments, is inevitably an imperfect endeavor. Effective communication requires that consumers receive information in forms easily understood. Consumers see health claims as useful, but prefer short, succinct wording rather than long and complex claims.\(^ {17}\) Research also indicates that restaurants significantly underestimate many items’ caloric intake.\(^ {18}\) Thus, mandated labeling may promote weight gain simply because it leads some consumers to believe that their meals at restaurants contain fewer calories than they actually do.

Grabbing consumers’ attention also requires informing them about food attributes that they care about. While many people (65 percent) said in the 1990s that they used food labels to check for things they were trying to avoid, that figure dropped to 48 percent in 2013.\(^ {19}\) Nudge theorists believe that consumers need to know more about calories, fat content, or other nutrients, but studies clearly point to taste as the most important attribute of their purchase decisions.\(^ {20}\) The dominance of taste suggests why many consumers are not so enthusiastic about reading food attribute labels.

Consumer focus on taste may also trump interest in “healthy” attributes especially when “unhealthy” eating is perceived to be tastier than “healthy” food. While 90 percent of respondents had given at least a little thought to the ingredients in their food and beverages, taste (87 percent) remained the most significant determinant of choices, followed by price, and then healthfulness.\(^ {21}\) Research also indicates that consumers often find the amount of information on food labels overwhelming.\(^ {22}\) The possibility also remains that mandated labels create incentives for businesses to reformulate their products in ways that make their products look better to consumers, but are not truly healthier.

Calorie labeling improves caloric estimation, but lower-calorie eating does not usually follow labeling mandates.\(^ {23}\) A study of New York City’s 2008 law requiring restaurant chains to post calorie counts finds no change in calories purchased after the law.\(^ {24}\) A similar conclusion is reached in a study of menu-labeling regulation in King County, Washington.\(^ {25}\) One study of providing daily, per-meal, or no calorie recommendations to randomized subsets of adult customers entering two McDonald’s restaurants finds no effect on purchases.\(^ {26}\) Calorie labeling did not influence what patrons of a large chain bakery café ordered for lunch.\(^ {27}\)

A recent review of studies published from 2007 through 2013 concluded that of the 31 studies reviewed, 18 were conducted in "real world" settings and focused on how calorie labels affected actual food purchases.\(^ {28}\) The authors found that the best designed studies (real world studies, with a comparison group) show that calorie labels do not have the desired effect in reducing total calories ordered at the population level.

**Past Government Nudges May Have Promoted Obesity**

It has recently been argued that the U.S. government fostered dietary changes that contributed to our growing obesity problem and diabetes prevalence through its emphasis on limiting consumption of eggs, butter, milk, and meat, while bulking up on carbohydrate-rich foods like pasta, bread, fruit, and potatoes.\(^ {29}\) Low-fat nutrition advice of the past 60 years has espoused the myth that low fat (especially saturated fat) is the best diet. Such guidelines are contained in the Dietary Guidelines for Americans jointly published by the U.S. Department of Agriculture (USDA) and the Department of Health and Human Services (HHS) every five years.

Despite the lack of evidence supporting low-fat diets, only in 2010 did the Dietary Guidelines Committee stop recommending limits on total fat. A meta-analysis of all available evidence recently published in *Annals of Internal Medicine* concludes that current evidence does not clearly support high consumption of polyunsaturated fatty acids and low consumption of total saturated fats.\(^ {30}\) The authors note that, while saturated fats moderately raise “bad” LDL-cholesterol, it is not apparent that this leads to adverse
health outcomes such as heart attack and death.

Adverse effects on people can persist even when government mistakes on nudging are eventually acknowledged. For example, recent Gallup polls demonstrate that most Americans remain committed to avoiding fat in their diets, with nearly twice as many actively avoiding it (56%) as say they are actively avoiding carbohydrates (29%).31

Conclusion

Weight loss is evidently difficult for the overweight. Unbridled enthusiasm surrounding government nudges is fanciful in light of the fact that the weight-loss industry grosses about $3.2 billion annually today, with the three largest firms (Weight Watchers, Nutrisystem, Medifast) controlling roughly half the market.32 It remains unclear what added value comes from government nudging citizens toward weight control. Private companies face “market tests” that ultimately rate how well their nudges deliver on their promises. Mandated nudges are government guesses that receive little to no scrutiny.33 Nudge failures do not jeopardize government employees, and feedback from the populace is slight to none. Governments thus receive little information on how they might revise or when to reject nudges that fail to improve health.34

Consideration of how past government nudges probably promoted obesity should give pause to nudge theorists. Government nudges are not immune to unintended consequences. Despite claims that nudges reflect “benign paternalism,” they may not be so benign.

Michael L. Marlow, Ph.D., is professor of economics at California Polytechnic State University, San Luis Obispo, and an affiliated scholar of the Center for the Study of Economic Liberty at Arizona State University. This paper is partly based on a working paper “Nutritional Label Nudges Are Unlikely to Improve Public Health” for the Center for the Study of Economic Liberty. Contact: mmarlow@calpoly.edu.

REFERENCES