

Chapter 9

The Food Industry Role in Obesity Prevention

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Introduction

At least once during the last century nearly every country in the world has had to fight food shortages or starvation (Wansink 2006). Examples include Belgium in 1918, America in the Depression, and almost every European and Asian country during World War II. Today the food table has turned. Critics now blame low-cost, easily available food for making us obese (Nestle 2002). In particular, food companies have been accused of contributing to the growing problem of obesity in the United States (Brownell and Horgen 2004). Although food companies perform a vital function in society, they cater to the strong biological drive to eat whenever food is available, and the food supply currently provides a level of calories per capita that exceed caloric needs for most U.S. adults (Harnack et al, 2000; Gerrier and Bente, 2002)

Nearly *every* industry plays some role in creating our obesogenic environment. In the last 100 years, the vast agriculture, manufacturing, energy, and technology industries have all consistently pushed themselves to build production and distribution systems that are more and more efficient and which require less and less physical labor. With food, for instance, these combined efforts have resulted in lower prices and higher availability of many foods in every corner of the United States, whether it be a Subway restaurant in Correctionville, Iowa or the ubiquitous vending machine in the basement of most buildings.

Over the past several decades, technology has significantly reduced the number of jobs that require physical labor. Technology – in the form of electric mowers, garage door openers, and remote controls – has reduced the physical labor we need to expend at home. Thus, the overall energy expenditure of the population has dropped substantially, and there are more and more sedentary entertainment choices to occupy our leisure time.

Another product of these systemic industrialization and technological improvements has been a change in the food supply. In 75 years we have gone from the bread lines of the Great Depression to a system that provides a huge variety of high calorie foods, nearly everywhere in our environment and at relatively low cost, both in terms of money and effort to obtain and prepare.

Because food is such a large part of this modern obesogenic environment, it is not surprising that the food “industry” has become the focus of intense scrutiny. While some see it as the architect of the obesity epidemic (Nestle 2002), others see it as holding the positive solution for future generations (Wansink and Huckabee 2006). This chapter will focus on what the food industry can do to help combat obesity. Specifically in this chapter we examine the main principles that drive the food industry and what the food industry can do to help de-market obesity. As background, we characterize phases in the obesity evolution of the food industry and explain basic principles that drive food acquisition and consumption. We then explain basic principles that govern the behavior of food companies and describe five general drivers that can be reversed to profitably de-market obesity.

A focus on food here is not meant to ignore or under-appreciate the roles of other industries in contributing to the behaviors leading to obesity (e.g., the physical “inactivity industries,”) but rather it is to highlight what is happening in the industry that has been “in the bulls eye” since the obesity crisis first began garnering public attention. The potential role of other industries in reversing obesity has been given much less attention to date. The lessons learned from observing the food industry response to obesity will likely apply to these other industries. Eventually they will need to become involved if we are to make meaningful progress toward meeting this public health challenge.

The Evolution of Response

The food industry’s response to allegations that it is the culprit in the obesity epidemic appears to be evolving through three phases: (1) denial, (2) appealing to consumer sovereignty, and (3) developing win-win opportunities. In the first phase, many food companies and trade associations denied their role in obesity by noting that rising obesity can also be associated with rising levels of inactivity (Hill et al. 2005). The contention has been that if the food industry is to be blamed for obesity, so are automobiles, cable TV, video games, remote controls, elevators, attached garages, and the internet (Hill and Peters 1998). The second phase of response to obesity criticisms is a free market appeal to consumer sovereignty – let the customer decide. This has often involved an emphasis on moderation and choice (Horovitz 2004). In this phase, many food companies (particularly quick service restaurants) offered to customize current offerings for their patrons (veggie burgers became hamburgers without the burger) while advocating an increase in physical activity.

The third, evolutionary phase of response to these allegations involves developing profitable win-win solutions (where both industry and the public health benefit) to help consumers better control what they want to eat. Clearly no company would want to modify a product in a way that discourages consumers from purchasing it or consuming it. However, it may be in a company’s best interest to help consumers better control *how much* they consume in a single setting. Consider the indulgent “C” foods – cookies, cake, crackers, chips, and candy. Overconsuming an indulgent food can not only lead a person to gain weight, but it might also lead them to become satiated and to

temporarily “burn out,” not repurchasing the food as soon as they otherwise might (Inman 2001). Reducing the per occasion consumption volume of a food may provide a “win-win” solution for both companies and consumers. Not only would this help consumers better control their single occasion consumption, but it could also help promote more favorable attitudes toward the brand and company (Wansink 2005). Collectively, these benefits for consumers may constitute the basic elements of a new value equation such that more and more people will seek those features in products that help them manage their intake.

The win-win solutions in this third phase offer a wide range of profitable segmentation opportunities for companies. Take the notion of single-serving packaging. Although such packaging would increase production costs, the \$40 billion spent each year on diet-related products is evidence that there is a portion-predisposed segment that would be willing to pay a premium for packaging that enabled them to eat less of a food in a single serving and to enjoy it more. For instance, results from a survey of 770 North Americans indicated that 57% of respondents would be willing to pay up to 15% more for these portion-controlled items (Wansink 2006). Although targeting this “portion-prone” segment will not initially address the immediate needs of all consumers, it can provide one key driver that companies need to develop profitable win-win changes.

The assumption here is that the effects of food companies’ actions on obesity are unintentional, that is, that food companies are focused on making money rather than on making people obese. Following this line of reasoning suggests that the answer to the obesity issue will be found not in increased regulation, but rather in market-based changes that help consumers develop a new appetite for healthy foods (Wansink and Huckabee 2005). The most innovative solutions for de-marketing obesity will be solutions that leverage the basic reasons why we eat the way we eat.

Two Principles that Drive Food Acquisition and Consumption

Until the beginning of the industrial age, food acquisition was a major activity for most people. The efficiency and prosperity of industrialization made it easier and more efficient for us to do our “hunting and gathering.” Food became plentiful, tasty, and relatively inexpensive. An outcome of the industrialization of the food supply is that the highest dietary energy sources preferred by humans, sugar and fat, are among the cheapest commodities in the market (Drewnowski and Darmon 2005; Drewnowski, Darmon, and Briend 2004). In addition, shelf stability became important to further reduce the cost of producing and distributing foods and to add other consumer benefits (e.g., convenience). From a food technology perspective, shelf stable foods must generally be low in water, which often means they are high in fat and carbohydrate and consequently, high in calories and calorie density. Thus, many of today’s favorite consumer food brands are high in sugar and fat and are much less expensive, in both cost and time to prepare, than fresh produce or other foods now known to be more healthful.

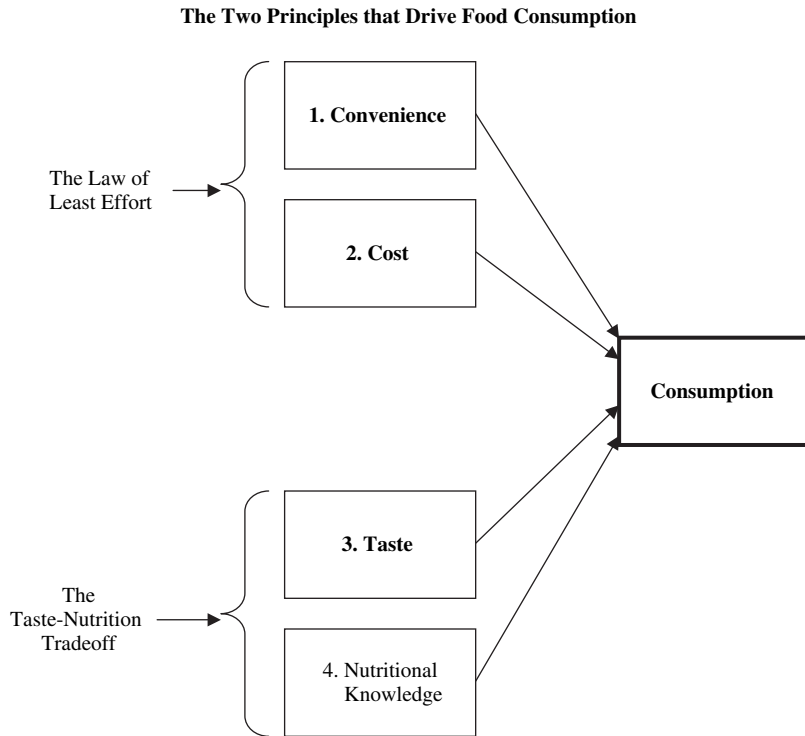


Figure 9.1 The two principles that drive food consumption.

Consumer behavior with respect to food acquisition and consumption can be understood in terms of basic principles: The Law of Least Effort and the Taste-Nutrition Tradeoff (Wansink and Huckabee 2005). The nature of these two principles is shown graphically in Figure 9.1. As explained below, these two principles related to food acquisition and consumption have driven our food acquisition and consumption since the hunter-gatherer days. Understanding these influences informs our understanding of what is realistic to recommend with respect to food industry initiatives and what would be ineffective because of our basic nature.

The Law of Least Effort

The Law of Least Effort holds that people seek the greatest convenience at the lowest cost. Innovations through time have generally reduced the amount of effort it takes to move (e.g., the wheel), to learn (e.g., the printing press), or to communicate (e.g., the telephone). This motivation or tendency to work toward conserving effort also explains why new houses have attached garages with garage door openers, why ice makers and dishwashing machines are never *de*-installed, and why driving is often preferred to walking or biking. Even where people do walk (such as in New York City), bike (as in Amsterdam), or ride mass transit (Washington DC), it is often because it convenient, economically efficient, or socially acceptable. The same principles apply to food – people seek food products that provide them with greater

convenience. The drive to acquire food at lower cost is related to basic principles of both economics and psychology (Wansink 2006).

This desire to follow the path of least effort results in a number of changes to our food distribution system that are market-driven and which also create food environments that make it easy for any consumer with average willpower to overeat. Because of this “Law of Least Effort,” we get convenient, easy-to-open (and consume) packaging, vending machines, drive-through restaurants, and free pizza delivery. We get the chance to buy foods ready to eat instead of having to prepare them.

The Taste-Nutrition Tradeoff

Three strong taste preferences have been genetically passed on to us over the generations, specifically the tastes for fat, salt, and sugar. By giving us the taste for fat, sugar, and salt, our genes led us to prefer the foods that were most likely to keep us alive. Fatty foods helped our ancestor’s weather food shortages. Salt helped them maintain an appropriate water balance in their cells, to avoid dehydration. Sugar and the sweetness associated with it helped them distinguish edible berries from poisonous ones. Having this taste has also led us to desire a wide variety of foods. Eating a greater variety of foods increased the likelihood of consuming the wide range of the, then-unknown nutrients we needed. Our natural inclination for variety made sure we consumed adequate amounts of essential nutrients without requiring knowledge about specific vitamins, minerals or types of energy sources.

In other words, in times of food scarcity or insecurity “good taste,” meant “good health.” The more fat, salt, and sugar our ancestors consumed (within limits), the more likely they were to survive. In contrast, the surplus of food in the developed world has led to current perceptions that taste and health are inversely related. The more fat, salt, and sugar a food contains, the *less* healthy it seems to be perceived when food is abundant. Nevertheless, we are still hardwired to prefer “good tasting” food and all the fat, salt, and sugar it provides. Salt, fat, and sugar have a genetic upper-hand when it comes to food choice. These are not ingredients we eat because of clever marketing. They are ingredients we would seek out regardless of marketing. Yet a predisposition toward them makes marketing even more effective at telling us what we want to hear.

Consider the case of restaurant food, especially “fast food.” Market research indicates that burgers, French fries, pizza, and Mexican food comprise about 50% of all restaurant orders and, together, are ordered with much greater frequency than vegetables and side salads (see Figure 9.2) (NPD Group 2003). According to a Burger King official, this chain sells about 100 Whoppers for every Veggie Burger, roughly 10 Whoppers for every salad, and about 10 fried chicken sandwiches for every grilled chicken sandwich (Horovitz 2005).

Fast food is so widely consumed because we are genetically designed to love it. More accurately, it has been designed to love *us* by giving us generations of taste evolution that encourage us to crave fat, salt, and sugar, as just described. The components we love in fast food are things that our hunter-gatherer forefathers sought out for survival. French fries and chips have salt

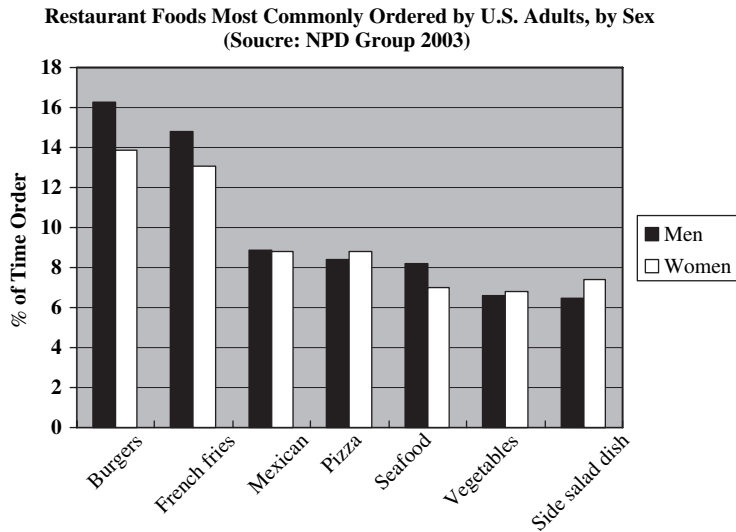


Figure 9.2 Restaurant foods most commonly ordered by U.S. adults, by sex.
(Source: NPD Group 2003).

and fat, donuts and Pop-tarts have fat and sugar, Coke and Pepsi have sugar and salt, and candy bars pretty much have them all.

Some anti-obesity advocates believe that fast food is addictive (Schlosser 2001; Critser 2003). They believe manipulative companies fill fast food with fat, salt, and sugar because they know we will eat it, love it, and come back again and again. Is this really true? Do food companies put ingredients in their food that they know we will eat and love? The answer is a resounding “yes”. However, in a sense, the companies that make fast food are no more guilty than the traditional grandmother who added extra salt and sugar to her secret pasta sauce, loaded her cookies with butter and sugar, who basted the Thanksgiving turkey with its own fat. And the traditional grandmother is no more guilty than anyone else who wants to please their dinner guests: we all add spices, butter, and sugar or other such ingredients so that our friends will enjoy the meal.

Anyone who cooks knows which ingredients make food taste good. Companies know this, and your grandmother knew this. If these ingredients were outlawed, no one would eat fast food anymore, nor would they arrive in time for a meal at grandmother’s house. In other words, if we remove the good taste from foods, people will not want to eat them, at least not often or not for long.

Fast food gives us the taste we want, and it gives it to us at a good value and with little effort. The people most critical of fast food are usually not those in this “limited means” market segment. There is no need to defrost the hamburger at noon or to slave over a hot stove when you can say “Value Meal #2 – large” without leaving your car. The typical person pulling in to a fast food parking lot is likely to “have a couple bucks in his pocket and is looking to get as much good food for that money as he can,” according to Eric Haviland, Director of Strategy for Taco Johns (2005). Consistent with this, Taco John’s rival, Taco Bell, abandoned its Low Calorie menu around 2003, opting to now use the positioning, “Feel Full.” For a hungry person with limited means, feeling full is a

whole lot more tempting than nibbling on a salad with vinaigrette on the side. In addition fast food is also very predictable and there are no surprises: There are no bad tables, no tipping, and the toppings on a Big Mac are always the same.

Principles that Influence Food Companies

There are also fundamental principles that govern the behavior of food companies. One is that they do not care if you eat the food as long as you repeatedly buy it. The other is that they want to make a profit.

Hence, although it might appear to some that McDonalds, or Kraft, or Haagen-Dazs are only in business to make us fat, in reality, these companies can still make money if we buy a meal or product, eat half, and then throw the other half away. What matters is that we buy their product rather than one from their competitors. The profit is made when the company sells the product to you and this actually applies to any food company or establishment. If we said “We want to buy a dozen heirloom tomatoes, take them home, leave them in the refrigerator for a month, and then throw them out,” your local grocery would still sell them to us.

The second principle – that companies are in business to make a profit—can work in favor of the consumer. Two such success stories are in Table 9.1. Similarly, if starting tomorrow at noon, we all went into McDonalds and Burger King and ordered only salads, their menus would change overnight. Within a

Table 9.1 Two success stories of profitably helping de-market obesity.

Company	Action	Result
Kraft	<p>Introduced in 2004, <i>Nabisco</i> 100-calorie packs were designed to provide consumers with great-tasting, better-for-you products that helped them stay on track with their sensible eating habits.</p> <p>The line featured new versions of some <i>Nabisco</i> classics, conveniently delivered in pre-portioned packages, each containing 100 calories and 0–3 grams of fat per pack.</p>	<p>The product was considered a success due to positive responses from the consumers, industry, and media, leading to the brand reaching \$100M in sales in less than a year.</p>
The Family Dining Chain	<p>In 2004, the 90-unit Family Dining Chain began to “lighten up” the menus, creating new dishes with lighter ingredients (in terms of calories and fat) and with more of a Mediterranean flair. One of the chain’s biggest successes during this phase has been greater use of vegetables.</p> <p>All new entrees are now presented on the menu with vegetables rather than starch (pasta or potatoes) as the standard accompaniment. Customers are explicitly given the option of substituting the starch back in, but roughly 90% of customers go with the vegetables.</p>	<p>Replacing starch with vegetables has caused sales to go up by 10–15% on an item-by-item basis. Entrees with vegetables as a main focus have been selling well also. The chain’s overall sales have gone up 4–5% during this period.</p>

year, people would be able to eat at Taco Salad Bell anytime they wished. Within another year there would be a chain of Broccoli King restaurants. In reality however, for reasons already noted, we are not all going to run down and order salads tomorrow. The earlier cited data on the most frequently ordered restaurant foods demonstrate the relatively low frequency of ordering salads. Cost is not always the issue. Burger King offers a \$1 side salad that costs less than medium fries, but the fries win out most of the time. In spite of the salad, it is the burgers, fries, and desserts that keep people coming back.

The perceived benefits for profitability are a factor when companies do respond to consumer preferences along more healthful lines. Just as companies will provide fattening food to eat mindlessly if that is what we want, they will also provide healthy food that we can eat mindfully if they can do so profitably. Improving the corporate image with an important population segment may be one relevant motivation. For example, when McDonalds realized how many vegetarians there were, Veggie Burgers made it onto the menu and the fries were fried in vegetable oil. When the low-carb diet fad grew in popularity, low-carb burgers appeared at Burger King. As a perhaps extreme example of giving an appearance of catering to consumer preferences, each tray liner at Burger King at one time presented the company’s version of the Bill of Rights (see Figure 9.3).

De-Marketing Obesity – What Companies Could Do to Profitably Help

So what can food companies do to profitably help us to eat more mindfully? To answer this, we need to look at what is it about food that causes us to gain

<p style="text-align: center;">Burger King Bill of Rights</p> <p>You have the right to have things your way. You have the right to hold the pickles and hold the lettuce. You have the right to mix Coke and Sprite. You have the right to a Whopper sandwich with extra tomato, extra onion and triple cheese. You have the right to have that big meal sleepy feeling when you’re finished. You have the right to put a paper crown on your head and pretend you’re ruler of “(insert your make believe kingdom here).” You have the right to have your chicken fire grilled or fried. You have the right to dip your fries in ketchup, mayonnaise, BBQ sauce or mustard or not.</p> <p>You have the right to laugh until soda explodes from your nose. You have the right to stand up and fight for what you believe in. You have the right to sit down and do nothing. You have the right to eat a hot and juicy fire-grilled burger prepared just the way you like. You have the right to crumple this Bill of Rights into a ball and shoot hoops with it.</p> <p style="text-align: center;">Have it Your Way</p>

Figure 9.3 Who’s deciding what is for dinner? Burger King Bill of Rights.

weight in the first place. Perhaps ironically, the answer can be found in already described factors that enabled our Paleolithic ancestors to maintain enough weight to survive the Ice Age.

Human beings are predisposed to overeat food that is (1) Palatable (tastes good), (2) Convenient (easy to prepare), and (3) Easy (inexpensive) to obtain.

Most of the leading packaged goods companies – like Pepsico, Kraft, and General Mills – are experimenting with new ideas, programs, and products that they think will be win-win solutions for their shareholders and their consumers. As indicated in Figure 9.4, a survey of 28 food and beverage companies indicated these changes can be broadly classified as changing multi-serve packaging, changing single serve packaging, introducing children’s sizes, and changing food label information (Nutrition Facts and serving sizes).

These are positive moves forward. Using the “mindless eating” principles outlined in this chapter, let us look at what else an astute, nutrition-conscious marketer could do to profitably offer us food that can mindfully help us lose weight (Wansink 2004; Drewnowski and Rolls 2005), i.e., can “de-market” obesity.

Extra-small and Extra-large Packages

Why do food companies always seem to Super-size? There are two reasons: (1) To satisfy our demand for value, and (2) to match the competition. A large number of people want to be able to buy a lot of food for very little money. If only one restaurant provided supersized value-meals, it would catch both our attention and our \$3.59. If the competitor across the street did not quickly do the same, he or she would lose business quickly.

People serve themselves more from larger packages (Wansink 1996). Therefore, one option would be to sell multi-packs with smaller individual

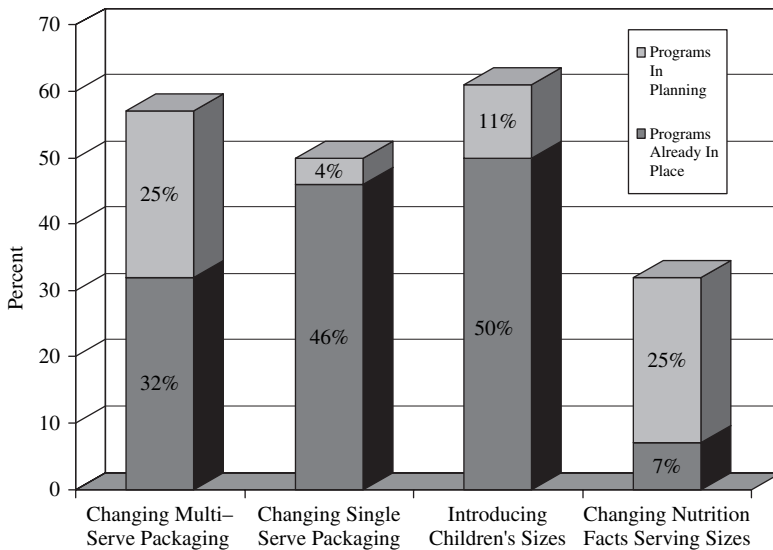


Figure 9.4 Percentage of U.S. companies making packaging changes (2000–2004).

(Source: Grocery Manufacturers of America 2004).

servings. For instance, instead of selling a large 20 ounce bag of potato chips, the large bag could contain four 5 ounce sleeves inside it. In this way, there would be a natural break point that would give us a chance to pause and decide whether we wanted to stop eating. This was discovered when 124 students were given either a large zip-lock baggie containing 200 M&Ms or a large zip-lock baggie that, in turn, contained 10 smaller zip-lock baggies each containing 20 M&Ms. When there was only one bag to open, people ate an average of 73 M&Ms during an hour. Those with the smaller baggies usually ate a multiple of 10. When the hour was over, they had eaten an average of 42 each from the multi-pack. That is 112 calories less – the mindless margin (Wansink 2006).

Another option would be to offer smaller, premium-priced packages. Although they would be a bit more expensive (per ounce) compared to the larger packages, some people would not mind paying more to eat less . . . or to eat better. Given the millions spent on diet foods and weight loss programs each week, the number of consumers who would pay more is probably substantial. In addition, smaller packages may cater to the ever-growing need for convenience. Consumers seem willing to pay a premium for on-the-go packaging that eliminates the need to either carry a big multi-serving package or to take the time to parcel out single serving portions into other containers.

This does not imply that the industries must abandon the value-priced super-size packages in favor of little boutique-sized, portion packs. There may be sizable markets for both – one that wants value and one that wants portion-control. The introduction of either into the market would give more options to current consumers generally, but particularly to those who are either price-sensitive or portion-sensitive.

Packing Products to Facilitate Portion Control

There are also other profitable packaging changes companies could make that could help us to eat more mindfully. One problem with eating food (such as potato chips) from a large package is that we do not know when to stop. Because we typically get full before we realize it, we can easily continue to eat long after we have eaten enough to meet our caloric needs. Unless we are eating slowly, or unless something interrupts us, we might keep eating until we are past the point where we are full. One way to interrupt the eating process is to create a natural stopping point. This can be done, for instance, by dividing a large container into several smaller containers. It can also be done through the use of internal sleeves that force us to actively make a decision as to whether we want to continue eating after we have finished a sleeve of six (or however many) cookies.

We call this “Thin Mint” packaging. Those familiar with Girl Scout cookies will be aware that the Thin Mint cookies are the ones that have a built-in stopping point. Instead of being presented in a wide-open, no-serving-size-limit tray, they are carefully wrapped in two cellophane sleeves. Finishing the first sleeve creates a pause, which is about all most of us need to stop. One of the more extreme versions of this can be seen with individually packaged cookies, such as many of the brands found in Japan.

These stopping points can take other forms. This was illustrated in the “Red Chip” study. This study used cans of Pringles (potato chips in a tube) in which

every 7th chip was dyed red; every 14th chip was dyed red; or no chips were dyed. People ($n = 150$) were invited to watch a video and to enjoy the new version of chips. Those who ate from the cans where every 14th chip was red ate an average of 15 chips. Those who ate from the cans where every 7th chip was red ate an average of 10. Those with no red chips ate 23. Having something, almost anything, to interrupt our eating gives us the chance to decide if we want to continue (Wansink and Huckabee 2005).

“Silent” Introduction of More Healthful, Good Tasting Formulations

Since 1995, food producers across the U.S. and beyond have instinctively cited the market failure of the McDonald’s McLean sandwich as the pre-eminent example of why healthy food does not sell. However, most of them are taking the wrong lesson away from McLean’s failure. It was not that there was no market for healthy foods or those companies just can not make good low-fat products. These foods are typically new products that taste new, are advertised as *healthy*, and are expected by consumers to taste bad. In contrast to an approach that draws attention to such new products, companies could quietly alter existing products in modest ways that reduce calorie density. In this way, there would be no negative “I’m sure this low-calorie candy is going to taste terrible” expectations of a healthy food that would prevent it from getting a fair shot.

These silent changes are something we call “stealth health” (Wansink 2005). To generate some initial ideas as to what the current best practices are in this area,¹ an exploratory web-based survey was conducted among 111 restaurant managers, asking them about recent successes in changing recipe formulation (Table 9.2) (Keystone 2006). On average, their successful changes used a “stealth health” approach – they opted to promote these items as fresh and tasty, rather than to use the word “healthy” ($p < .01$). They also had specific ideas as to how to best lower calories. Stealth approaches are facilitated by the fact that consumers will probably not compensate, calorically, when certain types of changes are made to food formulations: (1) When calorie the density of a food is decreased, we eat the same volume we usually do, (2) we think we are just

Table 9.2 How 111 food service operators prefer to reduce the calories in menu items.

How effective are the following techniques in lowering the calories in a successful menu item?	Mean rating (1 = Disagree; 9 = Agree)
Reduce the fat	7.4
Add vegetables	7.2
Add fruit	6.3
Add fiber	5.9
Reduce the carbohydrates	5.7
Reduce the protein	3.8

¹ The survey was done on behalf of an advisory committee which had as its task to provide suggestions to the Food and Drug Administration (FDA) on the nutrition labeling of away-from-home food.

as full, and (3) we think the food tastes the same (as long as it hasn't been labeled as being "reduced calorie"). Studies conducted by Barbara Rolls and colleagues have been the standard of showing how increasing the size of foods with water, air, or less dense ingredient substitutes can make foods more healthy and equally psychologically filling (Rolls et al, 2004a; Ello-Martin et al, 2005; Rolls et al, 2006).

Small modifications in formulations can lead to reduced calorie foods (like candy bars) that are the same size as regular candy bars. High energy density items, such as those with a lot of fat, can be replaced with fruits and vegetables without us even really being aware of it (Rolls 2005; Rolls and Barnett 2002; Rolls et al. 2004). We buy it, and we are happy. We buy it, and the industry is happy. This is now occurring in the marketplace. For example, McDonalds offers the option of having an apple snack with a Happy Meal. For anyone interested in having French dressing instead of French fries, Wendy's offers a small salad for the same price.

In general, we tend to look at the size portion as an indicator of whether it is a good "value." That is, the bigger the food, the better the value. While adding water, or air, or filler may do little to the taste, it helps maintain the perception of value, and it decreases calorie levels (Kral and Rolls 2004). Even if such efforts only reduce calorie levels by 10%, such a decrease in our daily calorie consumption would either slow or reverse the weight gain among most of us. It is important to remember, however, that this would be a slow process. This would be a pound-by-pound reduction, just as it was a pound-by-pound process in which the population has gained weight over the past several decades.

Provide Simple Labeling of Food but with Realistic Expectations about Impact

"Education" is the one-word, ready-answer to anything related to health. Once we say "education," it becomes somebody else's problem – like the government's or industry's. And if the "education" efforts don't work, the answer is "Do more of it."

Although marketing nutrition is a noble enterprise, education – as defined by most – is *not* the answer. See *Marketing Nutrition* (Wansink 2005) for a detailed discussion of this issue. People are generally too busy or distracted to read packages, or are too preoccupied or hungry to care that they should eat a carrot stick rather than a handful of crackers. As noted in other chapters in this book, ecological frameworks would suggest that nutrition education has an important role but only as one component of a multi-level approach to obesity prevention. Once the food environment is re-engineered so that healthy foods are promoted equally with unhealthy foods, labels and nutrition education may become more useful.

Having informational food labels is an important step in helping some consumers understand what they are purchasing and consuming, and accurate labeling of calories and serving sizes is a good idea. However, the impact of labeling on the nutritional quality of the total diet should be viewed realistically. Outside of an artificial laboratory situation – labeling only influences a modest percentage of consumers (Andrews, Netemeyer, and Burton 1998; Kozup, Creyer, and Burton 2003). The question is where should this information

stop. How much labeling is helpful and when might labeling information be counterproductive? One issue relates to “health halos” in which a label may backfire because the food becomes too associated with its health benefits (Chandon and Wansink 2007; Wansink and Chandon 2006). Another concern is the potential for overwhelming or confusing the average consumer. A recent report to the FDA made a recommendation that companies should emphasize caloric content when labeling away-from-home food. Caloric content is the one piece of nutrition information most commonly understood by consumers.

Keep it Affordable

Generally, when prices go up, consumption goes down (Drewnowski and Darmon 2005). However, although this may be true for “meat and potatoes” or fruits and vegetables, but it does not seem as true with more tempting foods, like candy, cookies, and ice cream. When the price of these goes up, we either buy it anyway because it is indulgent, or we simply switch to another brand of candy, cookie, or ice cream. One study showed that increasing the price of selected vending machine candy caused people to buy less of that candy (French 2003). However, it is less clear that this would be the case in natural settings. In the real world, if the price of a candy bar doubled, people would either pay it, or they would buy another brand. They would not stop eating candy. Similarly, if a fast food restaurant raised its prices, people would not stop eating fast food, they would simply eat it somewhere else. Raising prices of less healthful foods does not necessarily cause people to consumer more healthful foods that may be lower in cost. They may simply find a less costly form of the same food. In fact, raising prices within a reasonable free-market range does not change purchase behavior, it penalizes the people with the least money.

What is certain is that large increases in food prices make us look for other alternatives for the product in question. The challenge will be to help make the healthier options more attractive and more affordable. We cannot legislate or tax people into eating foods they do not like. However, this is not to say that a smart, well-intentioned marketer cannot help to shift consumer preferences. The two examples in Table 9.1 illustrate that small changes made by Kraft and the Family Dining restaurant chain both helped spark hope for how healthy changes can be profitable changes.

Where Do We Go From Here?

The opportunities and challenges outlined for the food industry also apply to other industries that can help reverse the obesity trend. Certainly, the principles are the same. The most fruitful approaches to changing “business as usual” will involve finding win-win solutions where both the consumer and the industry benefit and find the value equation acceptable. Because eating healthier and being more physically active essentially go against the “biological incentives” programmed into our physiology (i.e., it feels good to eat and rest) it will take a compelling set of circumstances – product, package, placement, education and marketing, price, etc. – to convince today’s consumer that they want to change their behavior. However daunting this may seem, it can be done and is happening all the time in the marketplace at least among segments of the population. Our job in promoting the health of the population at large is to help

nurture the growth of the market segments comprised of those people most willing to change. Encouraging the “early adopters” may help accelerate the acceptance of change by even larger groups of people so that gradually the majority of the population has embraced and adopted healthier choices.

What strategies are likely to lead toward positive changes and partnerships with the food industries? First, it would be helpful for industry leaders to recognize the role of small positive changes in products, labeling, packaging and so on as meaningful progress in the fight against obesity. All too often we focus more on the larger goal we want to achieve without appreciating *how* we will get there. For example, even though small reductions in the saturated fat, salt or calorie level of a product do not make it “healthy”, such changes may in fact help consumers “retrain” their taste preferences toward healthier products. It took over 25 years for a majority of consumers to change their behavior to consume reduced fat or skim milk, and much of this change was made possible by offering many different fat level options over the years, 2%, 1%, skim, which helped people retrain their taste preference for milk.

Second, public health practitioners should help connect consumers to product solutions. People are often worried about conflict-of-interest perceptions if they recommend products, but consumers need credible expert advice about new products on the market. We need to find a way around this barrier so that more consumers will try healthier new things, increasing the chance they might make a more permanent health behavior change.

Third, we need to find better ways for industry and public health to become more engaged and holistic partners. The public health and industry sectors separately are each insufficient to change behavior—they need each other. When health authorities all agree on an objective and when the industry is given a clear goal that is being supported externally, the marketplace can change rapidly. Such was the situation in 1990 when the health and medical community uniformly advocated that the diet should be reduced in total fat. The U.S. Public Health Service’s Healthy People 2000 initiative charged industry with launching 5000 new reduced fat foods by the end of the decade. The industry surpassed this goal by 1995. In retrospect, given that the advent of low fat foods did not achieve its intended purpose, one can argue whether fat reduction was the right health goal, but the point is that when a clear goal is set that the health community supports with a single voice, industry can respond rapidly.

Finally, we all must recognize that making healthy eating and active living “business as usual” will take time. The obesity epidemic did not occur overnight and the escape from this problem will also not be immediate. This does not should not mean we continue to advocate for more, faster, and bigger changes. Rather, it means we should embrace those changes that move things in the right direction, however big or small, while at the same time keeping the pressure on for more change, constant, incremental, directional. This strategy will eventually lead to success.

The Future: 21st Century Marketing

The 19th Century has been called the Century of Hygiene (Wansink and Huckabee 2005). That is, in the 19th Century more lives were saved or extended due to an improved understanding of hygiene and public health than to any

other single cause. We learned that rats were not house pets and that it is a good idea to wash hands before performing surgery.

The 20th Century was the Century of Medicine and Public Health. Vaccines, antibiotics, transfusions, and chemotherapy all helped to contribute to longer, healthier lives. In 1900, the life expectancy of an American was 49 years. In 2000, it was 77 years.

What about the 21st Century? We believe it will be the Century of Behavior Change. Medicine is still making fundamental discoveries that can extend lives, but changing everyday, long-term behavior is the key to adding years and quality to our lives—changes like reducing risky behavior and improving exercise and nutrition habits. The more we exercise and the better we eat, the longer and more productively we will live. There is not a prescription that can be written for such behavior. Eating better and exercising more are decisions we need to be motivated to make.

When it comes to contributing most to improving the life span and quality of life in the next couple generations, marketers could be important allies. They are in a good position to identify and promote the products that make it easier to exercise and easier to eat more nutritiously. They can also motivate us to do both of these things. Our eating practices would be a good place to start.

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