

The Smart Choices front-of-package nutrition labeling program: rationale and development of the nutrition criteria¹⁻⁵

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ABSTRACT

The goal of the Smart Choices Program (SCP) is to provide a simple front-of-the-package icon system to direct consumers to smarter food choices in the supermarket, which will eventually lead to more balanced diets and to more beneficial foods as food manufacturers renovate products to meet the nutrition criteria for carrying the icon. The SCP was developed by a coalition of scientists and nutrition educators, experts with experience with dietary guidelines, public health organizations, and food manufacturers in response to consumer confusion over multiple front-of-the-package systems based on different criteria. Representatives from different government organizations acted as observers. The process of developing the program was facilitated by the nonprofit Keystone Center, an organization that develops consensus solutions to complex health and social policy changes. The nutrition criteria for receiving the SCP icon are specific for product category by indicating “smarter” products within that category. A calorie indicator noting calories per serving and servings per package accompanies the SCP icon to remind consumers that calories do count, even for smarter food choices. For a product to qualify, it first has to be below the threshold for “nutrients to limit” and then (in most cases) it must be above the threshold for one or more nutrients or food groups to encourage. The criteria are based on the 2005 Dietary Guidelines and other consensus science and are transparent and available on the SCP website. This article describes the nutrition criteria and rationales for their selection. *Am J Clin Nutr* 2010;91(suppl):1078S–89S.

INTRODUCTION

There is increased emphasis in promoting health and wellness both in the United States and globally in large part because chronic diseases are the leading causes of death worldwide (1). Overweight and obesity, which are increasing throughout the world, are important risk factors for diet-related chronic diseases such as heart disease, diabetes, stroke, and certain cancers (1). Overall, about one-third (34%) of the world’s adult population is overweight or obese (2), two-thirds of US adults are overweight or obese (3), and the prevalence of childhood obesity and type 2 diabetes has been rising (4, 5). Changes in lifestyle behaviors, eg, improved dietary patterns and increased physical activity, can promote optimal health and reduce the risk of obesity and other chronic diseases (1). To that end, a number of strategies for improving consumer food choices have emerged in both the public and private sectors (6). The American Heart Association over a decade ago developed the “heart checkmark” program as

a means for the consumer to identify heart healthy foods (7). The American Heart Association checkmark is given to foods that meet the US Food and Drug Administration (FDA) criteria for a healthy food claim. More recently, the Clinton Foundation, in collaboration with some major food companies, launched the Alliance for a Healthier Generation dedicated to voluntary nutrition standards for foods sold in schools (8). Private-sector food manufacturers and retailers have become involved in strategies for the development of nutrition rating or profiling systems aimed at helping consumers make more nutritionally sound choices at the point of purchase (9). There has been a proliferation in the marketplace of independent proprietary food rating systems, nutrition symbols, and icons displayed on the front of food packaging, on shelf tags below products, or on signage in grocery stores and supermarkets (10). A variety of approaches developed by food manufacturers and retailers has emerged, such as the Smart Spot logo program developed by PepsiCo (11), Sensible

¹ From ConAgra Foods Inc, Omaha, NE (PTP); Grocery Manufacturers Association, Washington, DC (RH); The Keystone Center, Washington, DC (BRS); Kraft Foods Global Inc, Glenview, IL (RMB and DS); PepsiCo Inc, Chicago, IL (BJJ); Texas A&M University, College Station, TX (JRL); Tufts University, Boston, MA (ETK); Unilever, Englewood Cliffs, NJ (DAB); University of Minnesota, Minneapolis, MN (MS).

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Solutions developed by Kraft (12), and the Guiding Stars Program developed by the Hannaford Brothers supermarket chain (13). All of these systems are intended to aid consumers in making “smarter” food choices.

Although these programs represent important examples of systems aimed at helping consumers build better diets, there is concern that the various approaches based on different categories, icons, and other graphics, as well as different nutrition criteria, have led to consumer confusion. Currently, there is no single, generally accepted or empirically evaluated approach to rating or classifying foods. In fact, the US Government Accountability Office (14) recently released a report that concluded, in part, “according to many, consumers find the range of information on labels confusing and misleading. To help consumers more easily and quickly identify healthy food choices, many stakeholders in the United States and overseas support the addition of a uniform system of symbols on the front-of-package labels to indicate nutritional quality” (p 7). Without an industry-wide rating system and approach, efforts to use graphic portrayals on food labels may fall short of their potential to guide better consumer food and beverage choices (15). Motivated by the need to improve public health by creating a single, credible, and reliable front-of-package nutrition labeling system that US food manufacturers and retailers could voluntarily adopt to help consumers at-a-glance make smarter food and beverage choices that fit within their daily calorie needs, a diverse group of leaders from industry, academia, public health, and the government voluntarily came together in 2007 to form the Keystone Food and Nutrition Roundtable (the “Roundtable” from here on). Leadership and facilitation of the Roundtable was provided by The Keystone Center, a nonprofit organization that specializes in creating consensus solutions to complex social and public health problems (www.keystone.org). There was a shared concern among participating members of the Roundtable that too many systems were competing for consumer attention and trust, with inconsistent (and sometimes proprietary) nutrition criteria and varying on-package appearances. The Roundtable determined that both consumers and industry would benefit from one system and, over the course of 2 y and through a systematic consensus process, developed a unified front-of-package labeling program. This process involved developing the nutrition criteria and the procedure for applying those criteria to food and beverage products, planning and conducting qualitative and quantitative consumer research to evaluate the effectiveness of certain front-of-package scenarios, and developing an implementation and governance plan. It is expected that the consumer research used to develop these criteria will be the subject of a future article.

The new, uniform, voluntary front-of-the package nutrition labeling system is called the Smart Choices Program (SCP; www.smartchoicesprogram.com). The Smart Choices Program includes a symbol that helps consumers identify the smarter choices within specific product categories on the basis of nutrient profiles and food group content. The program also provides calorie information that identifies calories per serving and servings per container on the front of a package with the intent of helping people stay within their daily calorie needs (*see* **Figure 1** for the symbol and calorie information panel). The Smart Choices Program was publicly announced in October 2008 and began appearing on food and beverage packaging in 2009. The purpose of this article is to describe the nutrition criteria for qualifying



FIGURE 1. The Smart Choices icon and calorie indicator. Both the Smart Choices icon and the calorie indicator appear on the front-of-the-package label.

for the Smart Choices icon and to provide the rationale for those criteria.

GUIDING PRINCIPLES AND DEFINING ELEMENTS

The Roundtable developed a set of 6 guiding principles to support the creation of a front-of-package nutrition labeling system and to guide the deliberations and development of the nutrition criteria. The Roundtable agreed that the front-of-package nutrition labeling system should:

- 1) Be easy and simple to use to help improve the American diet. It should encourage consumers to make better food choices based on overall nutritional profiles and food group content.
- 2) Promote optimal health and reduce diet-related chronic diseases.
- 3) Be based on scientific consensus, aligned with the 2005 Dietary Guidelines for Americans (16) and be consistent with existing regulatory frameworks and national nutrition policy.
- 4) Complement nutrition label information with consumer education.
- 5) Stimulate product innovation and reformulation.
- 6) Be sustainable and flexible.

A key defining element was that the system should be transparent, including both the nutrition criteria and the governing mechanism for implementing the system.

NUTRITION CRITERIA OVERVIEW

The Roundtable worked collaboratively to develop the science-based nutrition criteria for the Smart Choices Program. The Roundtable was guided principally by the 2005 Dietary Guidelines for Americans (16), which provide the most comprehensive science-based dietary advice to promote health and reduce risk of the major chronic diseases for the US population aged ≥ 2 y. The Roundtable supplemented information from the Dietary Guidelines with other authoritative sources, including reports from the Institute of Medicine (17). In addition, the nutrition criteria were informed by nutrition labeling regulations and claims criteria from the US Department of Agriculture–Food Safety and Inspection Service (USDA-FSIS), which

regulates the labeling of most meat and poultry products (18, 19), and the FDA, which regulates the labeling of other foods (20). The Roundtable used the FDA's and FSIS's definition of "healthy" for guidance during its deliberations but chose not to limit foods that could be included in the program to those foods that met that the definition for the reasons described below. FDA and FSIS define "healthy" by using the following set of criteria: 1) the product is "low in fat" (≤ 3 g fat/serving); 2) "low in saturated fat" (≤ 1 g saturated fat/serving); 3) ≤ 60 mg cholesterol/serving and ≤ 90 mg cholesterol for meals, entrees, and main dishes; 4) < 480 mg sodium per reference amount and labeled serving; and 5) contains $\geq 10\%$ of the reference daily intakes or daily reference values of one or more of vitamins A, C, calcium, protein, or fiber (21–23). The FDA and FSIS definition does not take into account the concept of encouraging the consumption of key food groups, which is critical to a balanced diet and a main feature of the Dietary Guidelines for Americans. In addition, the definition is limited to avoidance of high concentrations of fat, saturated fat, and sodium. Because the Dietary Guidelines also recommend limiting intakes of sugars, *trans* fats, and calories, the Roundtable felt strongly that these additional elements should be taken into account. The Roundtable chose to build a program based on a more holistic approach that is linked to the Dietary Guidelines rather than solely to the FDA and FSIS definition of "healthy." Therefore, not all products that qualify for the Smart Choices Program symbol will qualify for the FDA and FSIS "healthy" designation and vice versa.

The Roundtable adopted certain conventions for nutrients regarding qualification for the Smart Choices icon. In particular, the labeled serving size and nutrient values as declared by the Nutrition Facts Panel form the basis for determining whether a product qualifies for the symbol. References to FDA or USDA nutrition criteria generally relate only to the quantitative nutrient thresholds and not to other elements of the regulation. The one exception is in the use of the regulated definition of "extra lean" for products in the meat, fish, and poultry category. An independent governing body will retain and implement methodologies to verify non-Nutrition Facts Panel elements, eg, added sugars and food groups to encourage that may be required to qualify a product for the program.

To qualify for the Smart Choices symbol (see Figure 1), products cannot exceed standards for specific "nutrients to limit" and for most categories must also provide positive attributes: "nutrients to encourage" or "food groups to encourage." A decision was made early in the discussions to set criteria by product category, eg, beverages, dairy, meat, and snacks, rather than to universally apply one standard to all products. For example, snacks are compared with other snacks. The rationale for this is that a shopper in the cereal aisle or beverage section could easily identify the smarter food and beverage selections within that product category by choosing those with the icon. The category-based approach also recognized that different foods have different nutritional profiles by nature. To qualify for the icon, a product must first be below the thresholds for nutrients to limit: total fat, saturated fat, *trans* fat, cholesterol, added sugars, sodium, and, in some cases, calories. For the purpose of transparency, product qualification for most categories and nutritional elements was based on the nutrient data, calories, and serving size declared in the Nutrition Facts panel. Fruit and vegetables (fresh, frozen, canned, and dried, with no additives that affect the nutrient profile) and plain or carbonated water automatically

qualify for the icon and do not need to meet the criteria for nutrients to limit or nutrient or food groups to encourage. For most product categories, if a product meets the threshold for "nutrients to limit," the product must also be either a good source of a nutrient to encourage or provide at least one-half a portion of a fruit, vegetable, whole grain, or fat-free/low-fat dairy requirement. Variations to these qualifying criteria are shown in **Table 1**. An important emphasis, which differs from some other nutrient profiling systems [eg, the Hannaford Guiding Stars (13) and the NuVal Nutritional Scoring System (24)], is that "positives" (eg, a good source of nutrients or a food group to encourage) do not compensate for nutrients to limit. The rationale for this decision was the Dietary Guidelines' consistent emphasis on selecting nutrient-dense foods and spending calories wisely (16). Statements such as "At each calorie level, individuals who eat nutrient-dense foods may be able to meet their recommended nutrient intake without consuming their full calorie allotment" support the concept of not wasting calories on nutrients to limit (16). Similar to the Dietary Guidelines for Americans and MyPyramid, the SCP is a population-based approach aimed at encouraging improvements in dietary patterns. Clearly, emerging research suggests that due to genetic polymorphisms in populations, there is variability in how an individual may respond to dietary changes (25). As our knowledge of how to optimize dietary advice for an individual increases, more refined tools for targeting to diverse groups will emerge.

Although SCP is a point-of-purchase program for encouraging smarter choices within a food category, the Roundtable considered how these foods, within a category, might fit into a meal and then into a healthier overall diet. The goal is to combine the Smart Choices Program with a strong educational component to help consumers fit these food choices into their diets. Toward that end, the Roundtable set certain limitations on foods in the context of the total diet. For example, the Roundtable used 2000 calories as the standard for a day's energy intake and allocated the 2000 calories to 3 meals (600 calories each) and one snack. Thus the category of "meals" could not exceed 600 calories, and snacks and desserts were set below 200 calories.

PRODUCT CATEGORIES AND ICON QUALIFYING CRITERIA

There are 19 product categories as shown in Table 1. As noted above, fresh/frozen/canned and dried fruit and vegetables with no additives that affect the nutrient profile and water (plain and carbonated) automatically qualify for the icon. Three other categories (meat, fish, and poultry; seeds, nuts, and nut butters; and fats, oils, and spreads) must meet the criteria for "nutrients to limit" only. All other categories, except 3, must meet the nutrients to limit and also have one or more nutrient or food groups to encourage. The 3 exceptions are meals that must have a combined total of 1.5 portions from the food groups to encourage and at least one nutrient to encourage, beverages for which the requirements depend on the amount of calories per serving, and chewing gum for which calories and added sugars are limited (Table 1).

NUTRIENTS TO LIMIT

Nutrients to limit are shown in **Table 2** and include calories, total fat, saturated fat, *trans* fat, cholesterol, added sugars, and



TABLE 1
Product categories and icon qualifying criteria

Product category	Criteria for icon ¹
Fresh/frozen/canned and dried fruit and vegetables with no additives	Automatically qualify
Water, plain and carbonated	Automatically qualify
Meat, fish, poultry	Nutrients to limit only
Seeds, nuts, nut butters	Nutrients to limit only
Fats, oils, and spreads	Nutrients to limit only
Fruit and vegetables, with additives and 100% juices	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Bread, grains, pasta, and flour	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Cereals (breakfast)	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Meat alternatives	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Cheeses and cheese substitutes	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Milk, dairy products, and dairy substitutes	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Soups, meal sauces, and mixed side dishes	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Sauces, dressings, condiments	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Snack foods and sweets	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Desserts	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Entrees, sandwiches, main dishes, and meal replacements	Nutrients to limit and ≥ 1 nutrient or food group to encourage
Meals	Nutrients to limit and ≥ 1 nutrient to encourage and 1.5 servings of a food group to encourage
Beverages	Nutrients to limit for all beverages: <ul style="list-style-type: none"> • ≤ 20 calories: nutrients to limit only • ≤ 40 calories: ≥ 1 nutrient or food group • ≤ 60 calories: ≥ 1 nutrient and food group (4 oz juice = 1 food group)
Chewing gum	Nutrients to limit <ul style="list-style-type: none"> • ≤ 20 calories: nutrients to limit only and 0 g added sugars

¹ Except for fresh/frozen/canned and dried fruit and vegetables with no additives and water, all products must first meet the requirements for nutrients to limit: total fat, saturated fat, *trans* fat, cholesterol, added sugars, sodium, and, in some cases, calories. If the product meets the criteria for nutrients to limit, then, in addition, it must have one or more nutrients or food groups to encourage qualifying for the icon. Exceptions are noted in the table. Threshold concentrations for nutrients to limit are shown in Table 2, and qualifying concentrations of nutrients and food groups are shown in Table 3. For a complete rationale for what is in each product category, see www.SmartChoicesProgram.com.

sodium. The Dietary Guidelines provided the rationale for the selection of these nutrients to limit, stating as a key recommendation: "Consume a variety of nutrient-dense foods and beverages within and among the basic food groups while choosing foods that limit the intake of saturated and *trans* fats, cholesterol, added sugars, salt, and alcohol" (p vii) (16). A limit on calories in certain categories was based on the overarching theme of the Dietary Guidelines that one should meet the recommended intakes of nutrients within one's energy needs (16). The specific rationales for each of these nutrients to limit are described below.

Calories

There are no authoritative standards to use for limiting calories in product categories or for individual products that could serve as a consensus-based rationale for the Roundtable. However, consistent with the Dietary Guidelines that emphasize choosing foods with one's energy needs in mind, Roundtable members agreed to set calorie caps for products designed to be either a major source of the day's energy intake (eg, entrees, sandwiches, main dishes, and meals) or products that could be considered to be sources of "discretionary calories" (eg, sauces, snacks, desserts, and beverages). Both the Nutrition Facts Panel and the Dietary Guidelines use 2000 kcal/d as a standard reference for energy intake. As noted above, the Roundtable divided the 2000 kcal/d into 3 meals (600 kcal each) and snacks (≤ 200 kcal). Thus, the calorie limit for a product classified as a "meal" was ≤ 600 kcal. For entrees, sandwiches, and main dishes the

assumption was made that they would constitute $\approx 75\%$ of calories at a meal, so a calorie cap of $(0.75 \times 600 = 450$ kcal) was chosen. The calorie limit for snacks was set at ≤ 160 kcal. The limit for desserts was set at ≤ 200 kcal (10% of the 2000-kcal standard), and beverages were capped at 60 kcal. At that calorie level a beverage would also have to meet the criteria for one or more nutrients to encourage *and* for one food group. The 60-kcal limit for beverages allows more nutrient-dense, low-sugar, 50% fruit juice beverages that contain one USDA My-Pyramid fruit serving to qualify for a logo. This is consistent with the concept of nutrient density in that the higher the calorie level, the greater the requirement for nutrients. In addition, an important aspect of the Smart Choices Program icon is that calories/serving and number of servings/package must also appear on the front of the package. This is an additional reminder of the importance of staying within one's energy requirement. It is also intended to ameliorate the possibility of a "halo effect" seen with some products in that a developing literature suggests that people may not be as careful with watching calories if they perceive that they are consuming a "smarter" or "more beneficial" product (26).

Fats and oils

The Dietary Guidelines state that fats and oils are part of a healthful diet, but the type of fat consumed makes a difference, especially to cardiovascular health (16). High intake of saturated fat, *trans* fat, and cholesterol can create abnormal blood lipid concentrations leading to greater heart disease risk. In addition,

TABLE 2
Threshold concentrations of nutrients to limit¹

Nutrient to limit	Threshold level	Exceptions
Total fat	≤35% calories or ≤3 g/serving	<ul style="list-style-type: none"> • Fresh/frozen/canned/dried fruit and vegetables with no additives and water (plain and carbonated) automatically qualify for an icon; thus by definition they do not have a total fat, saturated fat, or <i>trans</i> fat threshold. • Seeds, nuts, nut butters; fats, oils, spreads; and sauces, dressings, and condiments do not have a total fat threshold because it is not applicable to high-fat foods. They do have a saturated fat threshold of ≤28% of total fat to encourage “good fats.” • Meat, fish, and poultry must conform to USDA definition of “extra lean” for total fat and saturated fat on a serving basis. • Fatty fish have no limit on the amount of total fat if DHA/EPA is ≥500 mg/3-ounce serving. • Cheeses, milk, and dairy threshold for saturated fat is ≤2 g based on 1% milk-fat product.
Saturated fat	<10% calories or ≤1 g/serving	
<i>trans</i> Fat	0 g (<0.5 g/serving)	
Cholesterol	≤60 mg/labeled serving size	<ul style="list-style-type: none"> • Fresh/frozen/canned/dried fruit and vegetables with no additives and water (plain and carbonated) automatically qualify for an icon; thus by definition they do not have a cholesterol threshold. • Fruit and vegetables with additives, 100% juices, breads, grains, pastas, cereals, seeds, nuts, and nut butters are not typically sources of cholesterol in the diet. • Meat, fish, and poultry must conform to USDA definition of “extra lean” for cholesterol (95 mg/serving and per 100 g). • Meals and main dish and entrees have a 90-mg/serving cholesterol maximum consistent with USDA thresholds. • Sauces, dressings, and condiments with small servings (≤30 g) have a 30-mg/serving threshold.
Added sugar	≤25% of calories	<ul style="list-style-type: none"> • Water cannot contain any added sugar. • For the beverage category, the disqualifying criteria are calories rather than specific nutrients (<i>see</i> Table 1). • Fruit/vegetables with additives can have only 2 g (8 kcal)/serving from added sugars. • Snacks, desserts, sauces, dressing, and condiments if ≤100 kcal can contain 6 g added sugars. • Cereals are allowed up to 12 g added sugars/serving. • Milk and dairy products can have ≤12 g added sugars/cup and frozen dairy-based desserts are allowed up to 12 g added sugars/1/2 cup.
Sodium	≤480 mg/serving	<ul style="list-style-type: none"> • Cereals: recognizing the difference in density of cereal products <ul style="list-style-type: none"> • ≤240 mg for cereals weighing ≤43 g/cup. • ≤290 mg for cereals weighing >43 g/cup. • Meat, fish, poultry <ul style="list-style-type: none"> • ≤140 mg single, raw ingredient; otherwise, 480 mg. • Beverages, fats, oils, spreads <ul style="list-style-type: none"> • ≤140 mg • Entrees, sandwiches, main dishes, and meals <ul style="list-style-type: none"> • ≤600 mg (consistent with FDA “healthy” criteria)
Calories	No across-product calorie levels are set, but there are category-specific calorie thresholds	<ul style="list-style-type: none"> • Calorie levels are set for entrees, sandwiches, main dishes, meals, sauces, snacks, desserts, and beverages.

¹ DHA, docosahexaenoic acid (22:6n-3); EPA, eicosapentaenoic acid (20:5n-3); FDA, Food and Drug Administration; USDA, US Department of Agriculture.

the total amount of fat consumed is important because fats are calorie-dense. With these realities in mind, the Roundtable set the following criteria for total fat, saturated fat, *trans* fat, and cholesterol.

Total fat

The Dietary Guidelines recommend keeping total fat intake between 20% and 35% of calories, with most fats coming from sources of polyunsaturated and monounsaturated fatty acids, eg, fish, nuts, and vegetable oils (16). Accordingly, the Roundtable

limited total fat in the criteria to ≤35% of calories/serving. Intake of greater than this amount of dietary fat generally increases saturated fat intake and makes it more difficult to limit caloric intake. There are a few exceptions to the 35% threshold for product categories high in total fat, in which the majority of the fat calories are from mono- and polyunsaturated fats encouraged within the Dietary Guidelines. For example, cooking oils, dressings, nuts, seeds, nut butters, and fatty fish may contain >35% of calories from fat, but these foods are also important sources of essential fatty acids or of the longer-chain n-3 (omega-3) fatty acids eicosapentaenoic acid, 20:5n-3



(EPA), and docosahexaenoic acid, 22:6n-3 (DHA). Therefore, in place of a total fat threshold for these product categories, the Roundtable chose to use a fat quality threshold. The threshold established that no more than 28% of total fat can be saturated fatty acids. This represents the ratio of the 10% of calories from saturated fat to the 35% from total fat. This percentage keeps the saturated fat to total fat ratio the same as that of the overall Dietary Guidelines ratio.

In 3 categories—1) soups, meal sauces, and mixed side dishes; 2) snacks; and 3) desserts—an optional alternative total fat threshold was established for foods within these categories that are ≤ 100 calories/serving. The alternative criterion for total fat is a maximum of 3 g/serving. The amount of total fat was fixed for products of ≤ 100 kcal/serving to avoid penalizing products of smaller serving sizes and those lower in calories.

The Dietary Guidelines recommend 2 servings of fish, especially oily fish, per week [≈ 8 ounces (227 g) of fish per week] and state that consuming this amount of fish may reduce the risk of mortality from coronary heart disease (16). Fish oil is a rich source of the longer-chain n-3 fatty acids EPA and DHA. Intake of both fatty fish and fish oil has been associated with a reduced risk of sudden cardiac death and death from coronary artery disease in adults (27, 28). Types of oily fish include salmon, tuna, sardines, herring, mackerel, whitefish, and trout. The Roundtable used the Dietary Guidelines Advisory Committee Report (29) estimates of the amount of EPA + DHA that would be provided by 8 ounces (227 g) of fish that is high in n-3 fatty acids. This amount, ≈ 3250 mg of EPA + DHA per week, representing an average of slightly < 500 mg/day (29), was then used to establish the criteria that fatty fish with ≥ 500 mg/3 oz (85 g) DHA/EPA would not have a limit on total fat. For meat, fish, and poultry, the Roundtable based the criteria on the FDA and USDA-FSIS definition of “extra lean” and set a total fat limit of ≤ 5 g of fat per serving and per 100 g of product (30–32).

Saturated fats

The Dietary Guidelines recommend consuming $< 10\%$ of calories from saturated fat (16). The Roundtable used this threshold for almost all product categories and set an absolute value of ≤ 1 g for foods < 100 kcal. The saturated fat thresholds for the meat, fish, and poultry category are based on the USDA’s definition for “extra lean” (≤ 2 g saturated fat per serving and per 100 g product (30–32). The fat quality index for seeds, nuts, nut butters, fats, oils, spreads, sauces, dressings, and condiments was used as described above by setting saturated fat at 28% of total fat (10% saturated fat/35% fat = 28% of fat as saturated fat) to differentiate the foods in these categories that deliver healthier fats consistent with the Dietary Guidelines. Finally, for cheeses, milk, and dairy products, the saturated fat threshold was set at ≤ 2 g. This is based on the saturated fat content of a serving of low-fat milk allowing products to be made from up to a full USDA portion of 1% milk fat, which is consistent with the recommendations of the Dietary Guidelines.

trans Fat

The Dietary Guidelines maintain that Americans should keep *trans* fatty acid consumption as low as possible (16). The potential mechanisms for this greater risk include an increase in

LDL cholesterol, a decrease in HDL cholesterol, increased systemic inflammation, disruption of normal endothelial cell function, and possibly interference with the metabolism of other important fats (33, 34). Accordingly, the Roundtable established the criteria for *trans* fat as 0 g as labeled (< 0.5 g/serving). Per FDA regulation, the 0 g as labeled foods may include up to 0.5 g of *trans* fat per serving (20). This fact should be incorporated into any consumer education around the Smart Choices Program so that consumers do not accumulate smaller amounts of *trans* fat throughout the day that can add up to unhealthy levels of consumption. *trans* Fats occur naturally in some foods such as meat and dairy products at lower concentrations. The Roundtable chose not to include these naturally occurring *trans* fats in the standards criteria. Naturally occurring *trans* fats consumed as part of a diet low in saturated fat ($< 10\%$ of kcal) do not, at this time, appear to affect cardiovascular risk factors or be associated with increased risk of coronary heart disease events (35, 36). However, evolving science may warrant reconsideration of this issue as new research is made available.

Cholesterol

The concentration established for cholesterol by the Roundtable was ≤ 60 mg/per serving. The cholesterol concentration is based on the principles used to establish the FDA “healthy” definition that sets thresholds of 60 mg for individual dishes per Reference Amount Customarily Consumed and labeled serving size and per 50 g if the Reference Amount Customarily Consumed is ≤ 30 g or 2 Tbsp (30 mg), and 90 mg for meals, entrees, and main dishes (21–23). There are exceptions to the ≤ 60 mg/serving size criteria in certain product categories. The categories that contain plant-based foods, eg, fruit and vegetables with additives, 100% juices, cereals, seeds, nuts, and nut butters, are not typically sources of cholesterol so there is no cholesterol standard for these categories. This is also true of water. For the meat, fish, and poultry category, the Roundtable based the criteria on the USDA’s definition of “extra lean” that requires that the cholesterol concentration be ≤ 95 mg per serving and per 100 g of product for individual foods (21–23). For sauces, dressings, and condiments, the cholesterol concentration was set at 30 mg/serving size to adjust for the smaller serving sizes of these products.

By following the Dietary Guidelines’ primary recommendation to eat a well-balanced overall diet that emphasizes fruit, vegetables, whole-grain and high-fiber foods, fat-free and low-fat dairy products, lean meats, and poultry and fish twice a week, consumers will accordingly reduce their consumption of *trans* fats, saturated fats, and cholesterol—all important measures in maintaining overall health and reducing the risk of cardiovascular disease and obesity.

Added sugars

The amount of added sugar to allow in a food product received considerable discussion. There are few clear directives from consensus-based reports that provide a threshold for limiting added sugars or a science-based rationale behind that level. The Roundtable reviewed 3 pertinent documents in making its decision: the Dietary Guidelines (16), the 2002 Dietary Reference Intake (DRI) Macronutrient Report (33), and the report of a joint World Health Organization/Food and Agriculture Organization

Expert Consultation (37). The DRI Macronutrient Report concluded that “added sugars” should be <25% of kilocalories to protect against the dilution of micronutrients in the diet (24). The Report showed tables of micronutrient intake as a function of the percentage of kilocalories from added sugar. For both sexes and most age groups, at 25% of kilocalories from “added sugars” there was a significant decrease in the consumption of micronutrients (33). The World Health Organization Report concluded that no more than 10% of kilocalories should come from what they termed “free sugars” although the scientific rationale and data to support that recommendation were not provided (37). The Dietary Guidelines considered “added sugars” as discretionary calories, which are defined as the difference between energy requirements and the calories necessary to meet nutrient needs (16). The amount of discretionary calories available at each age level, energy expenditure level, and gender ranges from 154 kcal/d for young children whose energy requirement is \approx 1000 kcal/d to 334 for individuals whose energy requirement is 3000 kcal/d. Taking all of this information into consideration, the Roundtable concluded that the general guideline would be no more than 25% of kilocalories per serving of added sugars. This was considered to be the most representative consensus statement available; however, Roundtable members suggested that a science advisory committee revisit this number particularly at the time of the 2010 Dietary Guidelines release. There were several exceptions to the 25% of kilocalories per serving for “added sugars”: No added sugar concentration was set for beverages because the calorie criteria serve as the limiting factor in this category; chewing gum must have 0 g added sugars; water must contain no added sugars; for fruit or vegetables with additives, the Centers for Disease Control and Prevention’s “More Matters” product criteria were used (38) and added sweeteners was set at <8 kcal or 2 g/serving [eg, <0.5 tsp (2.5 mg) sucrose or equivalent amount of other sweetener]; for snacks, desserts, sauces, dressings and condiments, soups and mixed side dishes contributing <100 kcal, an added sugar limit of 6 g (25% of 100 kcal) was set to avoid penalizing smaller or low-calorie portions.

Three other exceptions (for cereals; milk, dairy, and dairy substitutes; and frozen dairy-based products within the desserts category) received considerable discussion. The Dietary Guidelines “call out” both breakfast cereals and fat-free/low-fat dairy as 2 categories of foods in which a slightly higher concentration of added sugar could be considered because intake studies indicate that there is micronutrient enhancement rather than dilution with consumption of these products (16). The Dietary Guidelines state “In some cases, small amounts of sugar added to nutrient-dense foods, such as breakfast cereals and reduced fat milk products, may increase a person’s intake of such foods by enhancing the palatability of these products, thus improving nutrient intake without contributing excessive calories. This may explain why the consumption of sweetened dairy foods and beverages and presweetened cereals is positively associated with children’s and adolescents’ nutrient intake” (p 36) (16). The Roundtable took the approach of using the recommendation of the World Health Organization/Food and Agriculture Organization report (1) of 10% of kilocalories coming from “free sugars” and applying it to a 2000-kcal diet, which would mean a 200-kcal/d maximum from added sugars. Dividing this into 4 eating occasions results in a maximum of 50 kcal from added sugars at each of 4 eating occasions, which translates into 50/4

kcal/g = 12.5 g of added sugars, rounded to 12 g. The Roundtable members viewed this decision as a transitional one and encouraged further product development to lower added sugars in products. Similarly for the category containing milk, dairy products, and dairy substitutes, these products, which include a cup of milk, yogurt, or soy milk, could provide up to 25% of a day’s free sugar limit on the basis of 10% of the energy threshold. Within the desserts category, a portion of one-half cup of frozen desserts, if \leq 150 calories and made from low-fat or fat-free milk or yogurt, would also account for about one-fourth of the day’s added sugar on the basis of 10% of the kilocalories threshold. The Roundtable recognized that fruit juices and fruit juice concentrates are sometimes added to products in place of free sugars to add sweetness. Fruit juices or fruit juice concentrates that provide the nutritional profile of 100% juice do not count toward added sugars.

Sodium

The Roundtable reviewed 3 consensus-based recommendations for sodium concentrations in foods: the 2005 Dietary Guidelines (16); the DRI report for water, potassium, sodium, chloride, and sulfate (39); and the FDA definition of “healthy” with respect to sodium (21). Neither the Dietary Guidelines nor the DRI translate dietary recommendations to specific sodium concentrations for foods. The DRI report sets an Adequate Intake concentration of 1.5 g/d and a tolerable upper intake concentration of 2.3 g/d based on prevention of increased blood pressure (39). The 2005 Dietary Guidelines Committee concluded that because \approx 75% of salt intake is derived from processed foods and because it would be difficult for many consumers to select a diet that would not exceed the Adequate Intake for sodium, that the upper intake concentration would be used to construct food group servings rather than the Adequate Intake concentration. This decision by the Dietary Guidelines Committee was considered a “practical” and “transitional” one that would be reconsidered as more lower-sodium food products became available. However, the current Daily Value (DV) used for the purposes of food labeling and the nutrition facts panel remains at 2400 mg sodium/d.

Consistent with the Dietary Guidelines message to reduce salt in the diet, the Roundtable opted to use the principles set within the FDA and USDA-FSIS definition of “healthy” for setting criteria for sodium but, in addition, to be more restrictive where practical. Thus the generic sodium values for the Smart Choices Program are the concentrations for the term “healthy” according to the FDA and USDA-FSIS, which are 480 mg/serving for individual foods (20% of the DV) and 600 mg/serving for meals and main dishes. This decision assured that the criteria used for Smart Choices Program was consistent with the Nutrition Facts Panel information and the current DV of 2400 mg/d. This was important to maintain the transparency of the program for consumers. The Roundtable agreed that when the DV is adjusted to reflect the recommendations of the Institute of Medicine and the Dietary Guidelines scientific reviews, the sodium criteria would be adjusted accordingly. In the meantime, there were a number of categories for which the Roundtable decided that the sodium limit could be reduced below the “healthy” concentrations. These exceptions are shown in Table 2 and include a reduction to \leq 140 mg/serving for raw-ingredient cuts for meat, fish, or poultry to limit the addition of sodium to these products



to retain moisture. The ≤ 140 mg/serving was chosen because it is the maximum concentration of sodium naturally occurring in most meats, fish, and poultry. This concentration of ≤ 140 mg is consistent with the FDA and USDA-FSIS definition of “low sodium.” The sodium concentration for cereals was also reduced and depends on the density of the cereal: ≤ 240 mg (10% of the 2400 mg DV) for cereals weighing < 43 g/cup; ≤ 290 mg for cereals weighing ≥ 43 g/cup. The sodium concentrations for fats, oils, and spreads and beverages were set at ≤ 140 mg/serving, which is also consistent with the low-sodium definition.

FOOD GROUPS TO ENCOURAGE

A basic premise of the Dietary Guidelines is that nutrient needs should be met primarily through the consumption of foods (16). Food groups specifically identified in the Dietary Guidelines whose consumption should be increased are fruit, vegetables, whole grains and fat-free/low-fat milk products (Table 3). The Roundtable considered a 0.5 USDA MyPyramid portion of a food group provided in a serving of food or beverage to represent a meaningful amount and would help contribute to the dietary intake from these food groups.

On the basis of a 2000-kcal diet, the Dietary Guidelines recommend 2 cups of fruit and 2.5 cups of vegetables a day with a typical USDA portion defined as about 0.5 cup for most fruit and vegetables, 1 cup for green leafy vegetables and 0.25 cup for dehydrated fruit and vegetables. Therefore, the food group threshold for Fruits and Vegetables within the Smart Choices Program was set at half of a USDA MyPyramid portion or 0.25 cup for most fruit and vegetables, 0.5 cup for green leafy vegetables and 0.12 cup for dehydrated fruit or vegetables for most categories. When fruit or vegetables in foods are in a more refined/processed form (ie, powdered forms made from dried or dehydrated fruit or vegetables) the food group requirement is based on providing dry solids equivalents to portions and a nutrient profile expected from those fruit or vegetables. For the 2 categories of entrees, sandwiches, main dishes, and meals, the amount of fruit or vegetables required was increased to reflect the nutritional contributions for fruit and vegetables and their respective nutrients expected in these products. For the product category of entrees, sandwiches and main dishes qualifying for a food group must provide: 1 USDA food group portion from “food groups to encourage” with a minimum of 0.25 serving provided from any of the 3 food groups (fruit and vegetables, fat-free or low-fat dairy, or whole grains). When fruit and vegetables are contributing to the food group requirement, between 0.25 and 1 USDA MyPyramid portion of either a fruit or vegetable can contribute toward the food group qualification. For the category of main meals, a total food group requirement of 1.5 portions has been set, and fruit and vegetables can contribute between 0.5 portions and 1.5 portions for food group qualification. These principles are consistent with those identified in each food and subgroup of the USDA Food Guide (16).

Whole grains are important sources of fiber and other nutrients. The Dietary Guidelines recommend consumption of ≥ 3 ounce equivalents of whole grain products per day, and that half of the grains come from whole grains. Grains include products such as bread, cereal flakes and cooked cereals and pasta (16). An ounce equivalent of whole grain is defined as 1 slice of bread or 16 g of flour (40, 41). Consistent with the Roundtable approach that 0.5

serving of a food group contributed a meaningful amount to the diet, the 0.5 serving of whole grain equals 8 g. The USDA considers 8 g whole grain to be a significant amount of whole grain in a product (42). For breads, grains, pastas, and cereals, a product must contain 8 g whole grains per serving and half of the grains must be whole grains; entrees, sandwiches and main dishes must contain 16 g whole grains and half of the grains must be whole grains. This combination requirement is consistent with the Dietary Guidelines recommendation to make half of all grain intake whole grains.

Consumption of milk and milk products is associated with overall dietary quality and adequate intake of several shortfall nutrients including calcium, potassium, magnesium and vitamin A (16). The Dietary Guidelines recommend consumption of 3 cups/d of fat-free or low-fat milk or equivalent milk products for individuals consuming 2000 kcal/d (16). To meet the food group criteria, products must provide a 0.5 cup serving of fat-free or low-fat dairy or the dry solids equivalent of 0.5 cup portion of low-fat or fat-free dairy, as well as the key dairy nutrients provided in 0.5 cup of dairy (eg, calcium). These amounts were increased to 1 serving and 1.5 servings, respectively, for the defined product categories (entrees, sandwiches, main dishes, and meals) to reflect the expected nutrient contribution in these products.

The food group criteria were applied to most product categories except those foods/categories which by their nature do not generally contain one of the identified food groups to encourage (eg, meat, fish, or poultry, seeds, nuts, nut butters, chewing gum, water). Those categories typically used as enhancements to foods such as fats and oils, condiments, sauces, and dressings have a small serving size and therefore do not have a food group requirement.

NUTRIENTS TO ENCOURAGE

A food guidance system with a focus on only nutrients to limit, such as saturated fat and sodium, while not acknowledging the nutrients to encourage, may not help build a balanced diet aligned with the recommendations of the Dietary Guidelines. The Dietary Guidelines used national dietary intake data to identify certain nutrients in short fall because of their low intake in the diet. Specific nutrients whose intake is specifically encouraged for all ages are potassium, fiber and vitamin E. In addition, for adults increased intakes of calcium, magnesium, vitamins A and C are encouraged and calcium for children and adolescents (16).

FDA and USDA-FSIS require that to claim that a food is a “good source” of a nutrient; it must contain $\geq 10\%$ of the DV per Reference Amount (43–45). The Roundtable chose to be consistent with nutrition labeling requirements and general nutrient content claim requirements in adopting this standard as the basis for setting the criteria for nutrients to encourage (Table 3). Several product categories, by their nature, did not generally contain the nutrients to encourage. Meats, fish and poultry contribute primarily protein. Seeds, nuts and nut butters contain “good fats” which were not addressed in the 2005 Dietary Guidelines as a nutrient to encourage. Categories with small serving sizes preclude the products from naturally contributing a meaningful amount of a nutrient (eg, fats and oils, sauces, dressings, condiments). Water, by its nature, is not considered a source of nutrients, nor is chewing gum.



TABLE 3Threshold levels of nutrients and food groups to encourage¹

Nutrient or food groups to encourage	Threshold level	Exceptions
Calcium Potassium Fiber Magnesium Vitamin A Vitamin C Vitamin E	≥10% Daily value	<ul style="list-style-type: none"> • Fresh/frozen/canned/dried fruit and vegetables with no additives and water (plain and carbonated) automatically qualify for an icon; thus by definition they do not have a nutrients-to-encourage threshold. • Meat, fish, and poultry and seeds, nuts, and nut butters, by their nature, do not typically provide one of the nutrients to encourage. • Fats, oils, spreads, and sauces and dressings and condiments with small serving sizes preclude these products from contributing meaningful amounts of the nutrients to encourage.
Fruit and vegetables	One-half of a USDA MyPyramid portion (0.25 cup most fruit and vegetables; 0.5 cup green leafy vegetables; 0.12 cup dehydrated fruit and vegetables).	<ul style="list-style-type: none"> • Fresh/frozen/canned/dried fruit and vegetables with no additives and water (plain and carbonated) automatically qualify for an icon; thus, by definition, they do not have a food group threshold. • Meat, fish, and poultry; seeds, nuts, and nut butters, by their nature, do not typically provide one of the food groups to encourage. • Fats, oils, spreads, and sauces and dressings and condiments with small serving sizes preclude these products from contributing meaningful amounts of the food groups to encourage. • Entrees, sandwiches, and main dishes must meet the nutrients to limit, nutrients to encourage, <i>or</i> provide one food group serving to reflect the nutrient contributions expected by these products. • Meals must meet the nutrients to limit and the nutrients to encourage <i>and</i> provide 1.5 food group servings to reflect the nutrient contributions expected by these products. • For entrees, sandwiches, and main dishes, food groups may combine to equal 1 food group serving in increments of 0.25 food group servings. • For entrees, sandwiches, and main dishes, food groups may combine to equal 1.5 servings. No more than half a serving should come from juice.
Whole grains	8 g/serving	<ul style="list-style-type: none"> • Grain-based foods (breads, cereals, pasta, etc), in addition to having 8 g/serving whole grain, must also meet the criteria that one-half the grains in the product be whole grains. • A whole-grain serving in entrees, sandwiches, and main dishes must provide at least 16 g/serving with one-half being whole grains.
Fat-free/low-fat dairy	—	<ul style="list-style-type: none"> • Entrees, sandwiches, and main dishes must meet the nutrients to limit and nutrients to encourage <i>or</i> provide one milk serving (1 cup/240 mL) to reflect the nutrient contributions expected by these products. • Meals must meet the nutrients to limit and nutrients to encourage <i>and</i> provide 1.5 food group portions of which milk can provide at least one of the required food portions.

¹ USDA, US Department of Agriculture.

AREAS OF ADDITIONAL DISCUSSION FOR THE ROUNDTABLE

Lean compared with extra lean

Participants deliberated at length regarding whether the fat and cholesterol thresholds for meats, fish, and poultry should be calibrated to the FDA and USDA-FSIS regulated definition of “lean” or “extra lean.” At the heart of the discussion was the intent of the Dietary Guidelines. Although the Dietary Guidelines policy document repeatedly uses the word “lean” when referring to fat consumption, there were differing views on what was intended by that wording—whether the Dietary Guidelines intended the regulatory definition of lean, or simply the very leanest cut of meat which would imply the regulatory definition of extra lean. The Roundtable conducted interviews with several scientists from the 2005 Dietary Guidelines Committee and government officials involved in the process of translating the 2005 Dietary Guidelines Advisory Committee report into the Dietary Guidelines policy document. Even after these interviews,

there was not a consistent view on the intent of the wording. After significant deliberation, a strong majority of the Roundtable voted to base the qualifying criteria on the USDA definition of “extra lean.” Thus, thresholds were set for fresh meats, fish, and poultry by using the following criteria: total fat ≤5 g/serving and /100 g; ≤2 g saturated fat/serving and /100 g; and <95 mg cholesterol/serving and /100 g.

Because of the significant deliberation around this issue and the need for further clarification in subsequent revisions, the Roundtable will include in its final report a recommendation that the 2010 Dietary Guidelines provide clearer, more quantified guidance around concentrations for fat consumption in meats, poultry, and fish.

Snacks and desserts

The Dietary Guidelines includes recommendations for fewer calories, increased activity and wise food choices (16). The recommended balanced eating patterns include a discretionary



calorie allowance. Because snacks and desserts typically contribute to discretionary calorie intake, these categories were specifically identified to include calorie levels. Although no authoritative source exists for setting calorie levels in snacks or desserts, based on a 2000/d kcal diet, a calorie level for snacks at ≤ 160 kcal/serving represents $< 8\%$ total calorie intake; a calorie level for desserts at ≤ 200 kcal/serving and < 150 kcal/0.5 cup serving for frozen-based desserts represents $< 10\%$ of total calorie intake. Both amounts are below the 267 discretionary calorie allowance for a 2000-kcal diet (16). During the Roundtable dialogue on these categories, some participants questioned whether the inclusion of snacks and desserts was appropriate for an eating pattern based on the Dietary Guidelines when most Americans have fewer discretionary calories due to sedentary lifestyles, and the majority of adult Americans are now overweight or obese. However, it was recognized that dietary guidance encourages dietary patterns that are not only nutritious, but also enjoyable (16). Roundtable majority opinion held that discretionary calories offer the opportunity for products, such as snacks and desserts, which meet this goal. In addition, within the context of the Roundtable approach, products in these categories that qualify for the icon would represent a sounder dietary choice than an alternative product in the category, and provide an incentive to food manufacturers to produce nutrient dense snacks and desserts with a balanced nutritional profile.

Products in both the snacks and desserts categories are required to meet the criteria for nutrients to limit as well as provide a meaningful amount of at least one positive nutrient and/or food group to encourage. This approach is consistent with the nutrient density concept. The Roundtable recognized that food producers have changed the profile of these categories with the introduction of “100 calorie packs” or lower calorie content offerings. For these reduced calorie products, the Roundtable agreed to a set of alternative quantitative limits of ≤ 3 g total fat, ≤ 1 g saturated fat, and ≤ 6 g added sugars based on the percentage of calorie threshold at the 100 calorie serving size. These reduced calorie products are still required to provide at least one positive nutrient and/or food group to encourage. Finally, some diet-type dessert products with ≤ 20 kcal/serving would qualify by meeting the criteria for nutrients to limit only. A similar standard exists in the beverage category.

Fortification

In reviewing the criteria for shortfall nutrients, the issue of naturally occurring compared with fortified sources was discussed. Fortification as an intervention strategy is not new. After World War II in the United States and some parts of Europe, fortification with a range of nutrients became common. Indeed some of the improvements in dietary patterns that occurred in the US have been directly attributed to fortification (46). Examples of the positive benefits of fortification include the elimination of rickets associated with vitamin D in milk, reduction in goiter with the addition of iodine to salt, and niacin fortification of cereals and other grains, which contributed to the elimination of pellagra. The addition of folic acid to enriched cereals and grains has reduced neural tube birth defects (47). There have also been major improvements in micro nutrient intakes in developing countries as a result of food fortification (48).

In addition, the scientific literature is unequivocal that both naturally occurring and synthetic sources of nutrients can confer

health benefits (49). In fact, in some cases synthetic nutrients are more bioavailable, as in the case of folate (50). There is no question that food fortification with selected nutrients can improve dietary intake. The concern within the nutrition community is that indiscriminate use of food fortification could lead to excessive intakes of some nutrients, in addition to creating further consumer confusion about good sources of shortfall nutrients.

The Roundtable, based on the consensus of science, agreed that both naturally occurring, as well as fortified shortfall nutrients would be included for purposes of qualifying products in the Smart Choices Program. However, to guard against inappropriate fortification, program implementers would be responsible for following the FDA Fortification Policy (51).

GOVERNANCE AND ADMINISTRATION OF THE PROGRAM

The Smart Choices Program is being administered in the marketplace as a 501(c)(4) nonprofit organization, by a partnership of the American Society for Nutrition and NSF International. Implementing companies pay a prorated program participation fee to support day-to-day operating costs, as well as the activities of the Board of Directors and the Science Advisory Committee.

Consistent with the new organization’s by-laws, the governing board must consist of 4 nonindustry members (eg, prominent academicians, representatives of or retirees from public health organizations), 4 industry members (ie, representatives of implementing companies), and one independent member who is widely viewed as impartial and selected by the other 8 members. The initial members of the board of directors for the Smart Choices Program were selected by the Food and Nutrition Roundtable. Although any Roundtable member could nominate candidates for both industry and nonindustry seats, voting was restricted to sectoral lines — ie, nonindustry members could vote only for nonindustry candidates, and industry members could vote only for industry candidates. At the Roundtable’s request, the ninth (independent) seat is being filled for the first year of the program’s operation by a representative of The Keystone Center.

The nutrition criteria will be revisited in light of future iterations of the Dietary Guidelines for Americans, and any changes in Dietary Reference Intakes and other landmark science. A Science Advisory Committee will be responsible for reviewing and proposing revisions to the criteria. The program’s by-laws state that the committee must have a majority of nonprofit representatives and/or academicians, and must have eleven members or fewer. Committee members will be selected by a Nominating Committee of the board.

The Science Advisory Committee will also develop a plan for evaluating the effect of the program over time. In addition, the American Society for Nutrition will coordinate with other researchers interested in evaluating the program.

CONCLUSIONS

The Smart Choices Program is a science-based front-of-package nutrition labeling program intended to help consumers make smarter food and beverage choices based on their overall nutritional profile. The Smart Choices nutrition criteria are consistent with the Dietary Guidelines for Americans (16) and other authoritative sources (1, 16, 33). The “nutrients to limit” are based on the avoidance nutrients outlined in the Dietary



Guidelines (16). Similarly the “nutrients to encourage” and the “food groups to encourage” in the Smart Choices Program derive from what the Dietary Guidelines term “shortfall nutrients” and food groups to encourage (16); these are nutrients and food groups consumed in low enough amounts in the US population to be of concern. Transparency of any rating or profiling system is essential. Thus, the present paper clearly specifies the nutrient criteria and rationale for each product category of the Smart Choices Program. Without this transparency, it would not be possible for the scientific community to critique and compare this system to others in the literature. The data used for product qualification for the Smart Choices Program are taken from the serving size declaration and nutrient content information provided in a product’s nutrition facts panel to assure further transparency of the system. When products qualify for the Smart Choices Program by providing a nutrient to encourage that is not mandatory in the Nutrition Facts Panel, participating companies will include the appropriate nutrient data in the Nutrition Facts Panel as part of the goal of transparency.

A major step in developing the Smart Choices Program was the identification of the 19 product categories within which the nutrition criteria were applied. These 19 categories more closely align with how individuals select foods in a retail setting. For example, the product category “Entrees, Sandwiches and Main Dishes” allows individuals to understand how a pizza compares to a frozen dinner. Similarly, the cereals category simplifies selection of smarter choices based on nutrient and food group profiles within a range of like products. The addition of calories per serving and number of servings per item on the front of the package is an important element of the Smart Choices Program. The information on calories is identical to that contained in the Nutrition Facts Panel. However, the front-of-package calorie disclosure is consistent with the guiding principle of making it easier for individuals to select foods.

The development and adoption of SCP is significant in 2 dimensions. First, any of the food companies and retailers who have adopted the program have agreed to use the SCP in lieu of existing proprietary systems. (As of this writing, 10 companies—ConAgra, DelMonte, General Mills, Kellogg, Kraft, PepsiCo, Riviana, SunMaid, Tyson, and Unilever—have agreed to implement the SCP.) Thus, consumers will receive science-based information on thousands of qualifying products that should assist in smarter food purchases. Second, a potential, significant effect of the Smart Choices Program will be to encourage food manufacturers in product innovation and reformulation. The private food sector responds to consumer demand. To the extent that this program facilitates access to a wider range of sound food and beverage choices on the basis of nutrient and food group profiles linked to the Dietary Guidelines, the consumer will benefit. The ultimate test of any consumer system for improving food choices is the effect on purchases and consumption. The Roundtable involved in developing the Smart Choices Program encourages research to determine the effectiveness of the system in improving a household’s consumption patterns. These data will be essential in understanding the effectiveness of the approach and in highlighting areas that need to be revised.

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by Kraft Foods Global Inc; RH is employed by the Grocery Manufacturer's Association; BJI was previously employed by and a shareholder of PepsiCo Inc and is currently employed by and a shareholder of ConAgra Foods Inc; ETK is a member of the Keystone Food and Nutrition Roundtable, which developed the Smart Choices Program, and is the President of the Smart Choices Program Board of Directors; PTP is an employee of ConAgra Foods Inc; BRS had no conflict of interest to disclose; DS is employed at Kraft Foods Global Inc; and MS had no conflict of interest to disclose.

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