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## Revised Nutrition Facts Panel: A Step Forward and More Room for Improvement

**Vasanti S Malik, ScD, Walter C Willett, MD, Dr.PH, and Frank B Hu, MD, PhD**

Department of Nutrition (VSM, WCW, FBH), Department of Epidemiology (WCW, FBH), Harvard T.H. Chan School of Public Health; Channing Division of Network Medicine (WCW, FBH), Department of Medicine, Brigham and Women's Hospital and Harvard Medical School

As rates of obesity and related chronic diseases continue to increase in the US, costing more than 190 billion dollars per year in health care expenditures (1), a public health crisis is unfolding that warrants careful reevaluation of existing policies to combat these conditions. Against this background, the US Food and Drug Administration (FDA) recently announced the first major amendment of the Nutrition Facts Panel in over two decades to be implemented in the next 2–3 years, to reflect the evolving evidence related to dietary factors and risk of chronic diseases. The collective changes update the list of nutrients that are required or permitted to be declared, provide Daily Reference Values and Reference Daily Intake values based on current dietary recommendations or consensus reports, reframe serving sizes and labeling requirements for certain package sizes, and revise the overall format and appearance of the label for enhanced interpretability (2).

The Nutrition Facts label was introduced in May, 1994 with the passage of the Nutrition Labeling and Education Act of 1990, and has become an iconic fixture on food packaging that provides point-of-purchase nutrition information in a standardized food label to help guide consumers to make healthy food and beverage choices. All packaged food items regulated by the FDA are required to display information on the label pertaining to serving size, number of servings, total energy and a selection of nutrients based on their role in chronic disease etiology or nutrient deficiency. These currently include energy from fat, total fat, saturated fat, cholesterol, sodium, carbohydrates, dietary fiber, sugar, protein, vitamin A, vitamin C, calcium, iron, and most recently *trans* fat. With over 61% of US adults reporting that they use the Nutrition Facts Panel, these labels have great visibility and potential to be important tools for public education and policy (3).

Prior to the current ruling, the only amendment to the original label has been the addition of a required line for trans fat content, implemented in 2006 in response to strong evidence linking intake of trans fat to adverse cardiometabolic health. This provided a strong incentive for manufacturers to eliminate trans fat; together with city and state-level regulatory action limiting trans fat use in restaurants, trans fat has been largely eliminated from the US food supply. This will be completed by 2018 with the recent removal of trans fat from the generally regarded as safe (GRAS) category by the FDA. The reduction in trans fat intake

accounted for about half of the improvement in the US diet quality since 2000, and is likely a major factor contributing to improvements in blood lipids (4) and a recent decline in type 2 diabetes (5).

The new changes will further align the label with current dietary guidelines(6). One important change is the addition of a line disclosing “added sugar” content with a corresponding Daily Value of 10 percent of calories, representing a limit of 50 grams (roughly 12 teaspoons) of added sugar for a 2,000 calories/day, a typical intake for adults (Figure). Although intake of added sugar has slightly decreased in recent years in the US, consumption still exceeds recommendations with the average adult consuming 22 teaspoons of added sugar per day. Sugar sweetened beverages (SSB’s) alone account for 39% of all added sugar intake(6). Intake of SSB’s and added sugar have been associated with weight gain and increased risks of type 2 diabetes and cardiovascular disease (7). Based on these data, the 2015–2020 Dietary Guidelines included the recommendation of limiting added-sugar intake to less than 10 percent of daily calories,(6) which is also endorsed by the World Health Organization. Once the changes are implemented, the label on a 20-ounce bottle of soda, for example, would let consumers know that they are consuming 130 percent of their added sugar limit for the day.

The new labeling requirement for added sugar is timely and accompanies other policy initiatives aiming to reduce intake of SSB’s and added sugars. For example, last year Berkeley, CA implemented an SSB excise tax of 1 cent per ounce, and San Francisco has recently passed a ruling to issue health warning labels on SSB’s. Boston, MA has prohibited the sales of SSB’s on city property and many school districts have banned sales and vending of these beverages as strategies to help curb childhood obesity. Similar to the case of trans fat, these collective legislative actions to reduce added sugar intake can create an environment that fosters and supports behavioral change towards more healthful choices and are more effective and efficient at reducing dietary risk factors than actions that depend solely on individual voluntary behavioral change. Consumer perceptions of added sugar may be particularly effective at motivating behavioral change, as illustrated in a recent analysis whereby health warning labels on SSB’s improved parental understanding of their health harms and may potentially reduce parent purchasing habits (8). In addition to helping consumers make more informed decisions about their food and beverage choices, the new disclosure of added sugar may also motivate food manufacturers to reduce sugar in their products.

In addition to highlighting added sugar, the updates are also consistent with current dietary guidelines in the removal of the line for “calories from fat”, reflecting evidence that fat quality is more important than quantity (6). However, a line for “total fat” will still appear, with a corresponding percent Daily Value assuming a limit of about 35 percent of daily calories. It is unclear why this is retained as there is no scientific basis for the Daily Value and it is inconsistent with the new Dietary Guidelines (6), which don’t set an upper limit for total fat. Declarations of potassium and vitamin D will now be required on the labels and reflect current recommendations to increase intake of these nutrients. Calcium and iron will continue to be required while vitamins A and C will no longer be required but permitted on a voluntary basis. Inclusion of potassium and vitamin D on the labels should be useful as they

are under-consumed by much of the population. However, the Daily Values, which are generally regarded as a goal for essential nutrients, for potassium and calcium are based on outdated or misleading evidence. For example, the daily value for potassium, 4700 mg per day, is unrealistically high for most people to attain and was based on a small study of salt-loaded men who were treated with potassium supplements (9). There is an urgent need to re-evaluate the Recommended Dietary Allowance (RDA) for both potassium and calcium.

Another change to the Nutrition Facts Panel is a new design feature that provides nutrition information both “per serving” and “per package” for food products that could be consumed by one person, such as pints of ice cream or bags of chips. Previously, information was only given per serving, which was often misleading because a package consumed by one person often contained multiple servings. The new label also highlights caloric content.

Most manufacturers will be required to implement the new label by July 26, 2018. However, those with less than \$10 million in annual food sales will have an additional year to comply. While these changes will likely be supported by most consumer groups, some industry representatives claim that the inclusion of added sugar lacks scientific justification. One of the central arguments is that calories from added sugar do not differ from calories from natural sugar or other sources, thus overconsumption of calories from carrots would be no different from overconsumption of calories from soda for health. However, the evidence linking intake of added sugar and SSB’s to adverse health is compelling (6, 7).

Some food manufacturers have managed to exploit the food label in ways not addressed in the current revision. For example, purified additives such as inulin and cellulosic fiber (“functional fibers”) are allowed to be included in the “fiber” line to convey a healthy product, even though there is little evidence that they have the same benefits as fibers contained in foods.

The new changes to the FDA Nutrition Facts Panel are an important step forward, especially with the addition of added sugar, but like the dietary recommendations on which they are based, they need to evolve and reflect advances in the field as well as changes in consumer behavior. Careful monitoring of how food manufacturing changes in response to the label changes will be an important step in ensuring nutritional quality of food products. Nutrition labeling and other regulatory actions have the potential to create food and social environments that support healthful choices with long-lasting benefits for the public’s health.

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## Nutrition Facts

Serving Size 2/3 cup (55g)  
Servings Per Container About 8

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**Amount Per Serving**

**Calories** 230      Calories from Fat 72

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**% Daily Value\***

<b>Total Fat</b> 8g	<b>12%</b>
Saturated Fat 1g	<b>5%</b>
<i>Trans</i> Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160mg	<b>7%</b>
<b>Total Carbohydrate</b> 37g	<b>12%</b>
Dietary Fiber 4g	<b>16%</b>
Sugars 1g	
<b>Protein</b> 3g	

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Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%

\* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.

	Calories:	2,000	2,500
Total Fat	Less than	65g	80g
Sat Fat	Less than	20g	25g
Cholesterol	Less than	300mg	300mg
Sodium	Less than	2,400mg	2,400mg
Total Carbohydrate		300g	375g
Dietary Fiber		25g	30g

## Nutrition Facts

8 servings per container  
**Serving size**      **2/3 cup (55g)**

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**Amount per serving**

**Calories**      **230**

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**% Daily Value\***

<b>Total Fat</b> 8g	<b>10%</b>
Saturated Fat 1g	<b>5%</b>
<i>Trans</i> Fat 0g	
<b>Cholesterol</b> 0mg	<b>0%</b>
<b>Sodium</b> 160mg	<b>7%</b>
<b>Total Carbohydrate</b> 37g	<b>13%</b>
Dietary Fiber 4g	<b>14%</b>
Total Sugars 12g	
Includes 10g Added Sugars	<b>20%</b>
<b>Protein</b> 3g	

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Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 235mg	6%

\* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.

**FIGURE.** Side by side comparison of the original label (left) and new label (right), from the FDA. <http://www.fda.gov/Food/GuidanceRegulation/GuidanceDocumentsRegulatoryInformation/LabelingNutrition/ucm385663.htm>