Examination of Front-of-Package Nutrition Rating Systems and Symbols
Phase I Report

The federal government, through the Nutrition Labeling and Education Act of 1990, requires that most packaged foods carry a standardized label—the Nutrition Facts panel—that provides certain nutrition information intended to help consumers make healthful choices. In recent years, manufacturers have begun to include additional nutrition messages, often represented in symbol form, on their food packages. These messages are commonly referred to as “front-of-package” (FOP) labeling, even though they may appear anywhere on the food package or on store shelves. As FOP labeling has multiplied, it has become easy for consumers to be confused about critical nutrition information. Adding to the confusion, manufacturers use a variety of FOP nutrition rating systems, with different and often conflicting criteria that can yield varying results.

In considering how FOP labeling should be used as a nutrition education tool in the future, Congress directed the Centers for Disease Control and Prevention (CDC) to undertake a study with the Institute of Medicine (IOM) on FOP nutrition rating systems and nutrition-related symbols. The study also is supported by the Food and Drug Administration (FDA). The IOM study will be completed in two phases. Examination of Front-of-Package Nutrition Rating Systems and Symbols: Phase I Report reviews current systems, examines the strength and weaknesses of the nutrition science that underlies them, and reaches conclusions based on a nutrition perspective; The Phase II report will focus on the consumer perspective.

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Nutrition Characteristics of Effective Systems

Given that the majority of the U.S. population is overweight or obese and that diet-related chronic diseases (such as coronary heart disease, stroke, type 2 diabetes, and certain types of cancer) are widely prevalent, a healthful diet is essential for all Americans.

The report concludes that it would be useful to display calorie and serving size information prominently in front-of-package symbols. The inclusion of total calories is one way to emphasize the importance of calories in the diet and may help consumers identify lower calorie foods and track the number of calories consumed. In addition, it would be useful to provide serving size information in familiar household measures in order to give context to the amount of food associated with the calories per serving. When presented in an easy-to-understand format, serving size information may help consumers better visualize realistic serving sizes and put that portion into context with the other foods and beverages they are consuming. This may mean, for example, displaying calorie content as “per serving” or “per package,” rather

Current Systems Vary Widely

The report concludes that the primary purpose of FOP labeling is to help consumers identify and select foods based on nutrients most strongly linked to public health concerns for Americans. Given the number of front-of-package systems on the market, it was not possible to conduct an exhaustive evaluation of each system. Rather, the committee selected three category types to help in comparing systems and identifying strengths and weaknesses: nutrient-specific systems, summary indicator systems, and food group information systems (see Box 1). The committee looked at 20 systems, each of which uses different nutrition criteria, resulting in differences in the ratings that products receive. The report notes that more research is needed on consumer understanding and use of use of FOP labels in order to determine which system type(s) is most likely to change consumer behavior and health. Consumer use will be the subject of the study’s second phase, which will examine various consumer-related and operational issues and make recommendations on how best to develop and implement front-of-package labeling systems.

Box 1: Types of Front-of-Package (FOP) Systems

<table>
<thead>
<tr>
<th>Nutrient-Specific Systems</th>
<th>Summary Indicator Systems</th>
<th>Food Group Information Systems</th>
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<td>Displays the amount per serving of select nutrients from the Nutrition Facts panel on the front of the food package or uses symbols based on claim criteria.</td>
<td>A single symbol, icon, or score to provide summary information about the nutrient content of a product.</td>
<td>Use symbols that are awarded to a food product based on the presence of a food group or food ingredient.</td>
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<td>Examples are General Mills Nutrition Highlights and Goodness Corner, Harris Teeter Wellness Keys, Kellogg’s Nutrition at a Glance, UK Traffic Light, Wegmans Wellness Keys</td>
<td>Examples are Choices (EU), Guiding Stars, Canada’s Health Check, Giant Food Healthy Ideas, AHA Heart Check, Nutrient Rich Foods Index, NuVal, Kraft Sensible Solution, Smart Choices, PepsiCo Smart Spot, Sweden’s Keyhole, Australia/New Zealand’s Tick Programme</td>
<td>Examples are ConAgra Start Making Choices and the Whole Grain Council Whole Grain Stamp</td>
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The committee finds that Americans consume too many calories, saturated fats, trans fats, added sugars, and too much sodium. In its report, the committee concludes that in addition to calories and serving size information, FOP labels also should provide information on saturated fats, trans fats, and sodium. Reducing saturated and trans fat intake may reduce the risk of coronary heart disease, and reducing sodium intake can reduce blood pressure, which, in turn, can reduce an individual’s risk of stroke and cardiovascular disease.

While the committee finds value in including saturated fats, trans fats, sodium, calories, and serving size information on FOP labels, it finds insufficient evidence to support the inclusion of information about a number of other nutrients. This finding is based on the relative importance of the nutrients—including total fat, cholesterol, total carbohydrate, total or added sugars, protein, fiber, vitamins, and minerals other than sodium—to the most pressing diet-related health concerns and challenges for measuring compliance, among other factors. Monitoring the intake of these nutrients remains important to a healthful diet, however.

Additionally, the committee finds that it may not be possible to establish a universal set of criteria that can be used across all FOP rating systems, and it explores multiple options for setting criteria for two main types of systems: 1. “nutrient-specific systems” that display the amount per serving of select nutrients or use symbols based on claim criteria; and 2. “summary indicator systems” that use a single symbol, icon, or score to provide summary information about the nutrient content of a product. These considerations may serve as a basis for setting future FOP criteria once consumer research and testing results determine which format or formats work best.

Conclusion and Future Directions

As the IOM report makes clear, no current front-of-package system is perfect, and each must be weighed against the purpose of FOP systems. Given current health needs, FOP systems may have the greatest benefit if nutrients are limited to those most closely related to prominent health conditions. However, additional work will be needed to further develop the criteria used in the systems and to improve the ability of the various symbols to convey the desired information. Research also is needed to determine the most effective way of presenting the ratings to consumers. Some of this research currently is being conducted by the FDA, academic institutions, and industry.

The second phase of the IOM study will draw from the current report and from ongoing research. It will focus on assessing consumer use
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and understanding of FOP symbols and determining which rating systems and symbols best promote public health. The report on the second phase, which is set to conclude in 2011, will offer recommendations for how best to develop and implement a standardized front-of-package nutrition labeling system or, if needed, a number of such systems.