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Who Regularly Uses the Nutrition Facts Label? Exploring Demographic, Socioeconomic, and Geographic Differences

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Abstract

Packaged food labels provide consumers with nutrition information they can use to identify and purchase foods that support a healthy eating pattern. In line with the U.S. Department of Agriculture's (USDA) role in developing and promoting the Dietary Guidelines for Americans, this report uses National Health and Nutrition Examination Survey (NHANES) data to examine the potential dietary benefits associated with the use of packaged food labels and whether differences exist among U.S. consumers in label use. Nationally representative data on adults aged 18 and older from NHANES were used to quantify the associations between regular use of the Nutrition Facts label when buying packaged foods and dietary intakes and identify the consumer characteristics that predict regular use of the Nutrition Facts label. The results indicate that daily intakes of calories, fats, saturated fats, alcohol, sugars, and sodium are significantly lower among adults who regularly use the Nutrition Facts label. Despite these potential dietary benefits, large disparities exist in the regular use of packaged food label information by sex, race and ethnicity, education, income, and geographic area. Notably, regular use of information about calories, sodium, and sugars is significantly lower among men (versus women), non-Hispanic White consumers (versus Hispanic consumers of all races), adults with less educational attainment (versus those with higher educational attainment), lower income households (versus those with higher incomes), and residents of nonmetropolitan areas (versus residents of large metropolitan areas).

Keywords: Nutrition Facts label, dietary guidelines, Flexible Consumer Behavior Survey module, National Health and Nutrition Examination Survey

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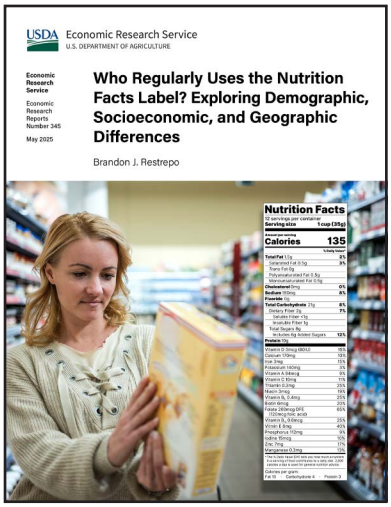
A report summary from the Economic Research Service *May 2025*

Who Regularly Uses the Nutrition Facts Label? Exploring Demographic, Socioeconomic, and Geographic Differences

Brandon J. Restrepo



What Is the Issue?

Packaged food labels provide nutrition information to consumers that may help them make healthier food purchase decisions. A Nutrition Facts label has been included on most packaged food products in the United States since the passage of the Nutrition Labeling and Education Act (NLEA) of 1990. The U.S. Food and Drug Administration (FDA) updated the Nutrition Facts label in 2003 and 2016. In 2003, the FDA added a requirement to declare trans fat content. In 2016, the FDA issued the first major update to the Nutrition Facts label since the original rule was issued in 1990. The design was refreshed, and a declaration of added sugars was added. This report investigates the potential dietary benefits associated with the use of packaged food labels and whether differences exist among U.S. consumers in label use. This report uses the latest publicly available nationally representative data from the National Health and Nutrition Examination Survey (NHANES) to quantify the associations between consumers' regular use of the Nutrition Facts label when buying packaged foods and their dietary intakes; and to identify the consumer characteristics associated with regular use of the Nutrition Facts label. An updated understanding of the potential dietary benefits and the consumer characteristics associated with regularly using the Nutrition Facts label can help inform future education campaigns that aim to improve consumers' use of the wide range of nutrition information available on packaged foods.

What Did the Study Find?

NHANES data indicate that from 2017 to March 2020, nearly 8 in 10 adults (79 percent) aged 18 and older reported using Nutrition Facts labels sometimes, most of the time, or always (i.e., they regularly used it) when buying packaged food products. This is significantly higher, by 17 percentage points, than the share of adults who reported regularly using Nutrition Facts labels in 2005–06 (62 percent).

Analyzing the 2005–06, 2007–08, 2009–10, and 2017–March 2020 NHANES data cycles indicated various potential dietary benefits associated with consumers' regular use of Nutrition Facts labels. The author controlled for a diverse set of demographic, socioeconomic, geographic, and interview-related characteristics and found that consumers regularly using Nutrition Facts labels have exhibited a range of healthier dietary intakes. In particular, he found that regular users of Nutrition Facts labels had significantly lower daily intakes of energy (-191 calories),

fat (-54 calories), saturated fat (-23 calories), alcohol (-26 calories), sugars (-90 calories), and sodium (-112 milligrams) compared with adults who have not regularly used Nutrition Facts labels. Regular Nutrition Facts label users also consumed 0.6 fewer meals per week that were prepared away from home, consumed 0.5 fewer frozen meals/pizzas per month, and spent $15 less per month on foods prepared away from home.

The analysis also revealed large disparities in the regular use of the Nutrition Facts label and specific types of packaged food label information. The most prominent gaps were those by sex, race and ethnicity, education, income, and geographic area. In 2017–March 2020, regular Nutrition Facts label use was significantly lower among the following:

- Men versus women (13 percentage points);
- Non-Hispanic White consumers versus Hispanic consumers of all races (6 percentage points);
- Adults with less than a high school diploma versus those with 4+ years of college (21 percentage points);
- Lower income households versus higher income households (2 percentage points for every 1-unit difference in the family poverty-to-income ratio); and
- Residents of nonmetropolitan areas versus residents in large metropolitan areas (9 percentage points).

The author observed disparities by sex, race and ethnicity, education, income, and geographic area for specific Nutrition Facts label components. For instance, in 2017–March 2020, regular use of information about calories and serving sizes, which are highlighted on the current Nutrition Facts label version, was found to be significantly lower among the following:

- Men versus women (17 percentage points for calories and 15 percentage points for serving sizes);
- Non-Hispanic White consumers versus Hispanic consumers of all races (5 percentage points for calories);
- Adults with less than a high school diploma versus those with 4+ years of college (20 percentage points for calories);
- Lower income households versus higher income households (2 percentage points for both calories and serving sizes for every 1-unit difference in the family poverty-to-income ratio); and
- Residents of nonmetropolitan areas versus residents in large metropolitan areas (8 percentage points for calories and 6 percentage points for serving sizes).

How Was the Study Conducted?

Data on adults aged 18 and older from a geocoded and date-stamped version of the 2005–06, 2007–08, 2009–10, and 2017–March 2020 NHANES were used to achieve two objectives. First, the author performed a linear regression analysis to quantify associations between regular Nutrition Facts label use when buying packaged foods and dietary intake. To reduce the risk of confounding the associations between regular Nutrition Facts label use and dietary behaviors with other factors, the author estimated associations that were conditional on a diverse set of individual, household, geographic, and interview-related characteristics. Second, the author conducted a probit regression analysis to explore and identify the characteristics that predicted regular Nutrition Facts label use when buying packaged foods.

Who Regularly Uses the Nutrition Facts Label? Exploring Demographic, Socioeconomic, and Geographic Differences

Introduction

Packaged food labels provide an opportunity for food companies to directly communicate with consumers by disclosing nutritional attributes about the foods they offer for sale. Consumers can consider this nutrition information to make informed and, if desired, healthier food purchase decisions. However, food producers generally do not disclose everything they know about their products. If producers possess information about the foods they sell in the marketplace that have not been shared with consumers, this lack of transparency can lead to lower or higher consumption levels relative to the situation in which food producers and consumers both have full information. In certain circumstances, the Federal Government may intervene in food markets to mandate that producers disclose the essential nutrition information needed to facilitate informed food purchase decisions that better match consumers' dietary preferences (Golan et al., 2001). For example, when the U.S. Congress passed the Nutrition Labeling and Education Act (NLEA) of 1990, effective in May 1994, the provision of nutrition information on most packaged foods became mandatory for U.S. food manufacturers. Because nutrition profiles for similar foods can differ substantially, this law ensured that U.S. consumers were given standardized nutrition information that could be used to identify and buy foods with the most desired nutrient levels. In 1994, the U.S. Department of Agriculture's (USDA) Food Safety and Inspection Service (FSIS) implemented similar mandatory nutrition labeling requirements for meat and poultry products that were not under the regulatory purview of the U.S. Food and Drug Administration (FDA). (See box, "The Federal Regulatory Agencies That Regulate the Majority of Foods and Food Labeling").

NLEA gave the FDA the authority to require the disclosure of the number of calories per serving and other nutrition information on a Nutrition Facts label, which is typically located on the back or side of packaged food products. NLEA also permitted food producers to make certain health and nutrient content claims on the front of packaged foods. The NLEA regulations covered about 90 percent of all processed food sold in the United States (Kuchler et al., 2017). By 1996, nearly 97 percent of FDA-regulated products displayed the Nutrition Facts label (Brecher et al., 2000). The objectives of the Nutrition Facts label were to empower consumers with the information they needed to make healthier food choices, to reduce consumer confusion about food labels, and to encourage food companies to produce healthier food products (Kuchler et al., 2017).

The Federal Regulatory Agencies That Regulate the Majority of Foods and Food Labeling

The U.S. Food and Drug Administration (FDA) and the U.S. Department of Agriculture share jurisdiction over food products in interstate commerce. FDA's Center for Food Safety and Applied Nutrition is responsible for ensuring the safety and labeling of nearly 80 percent of all food consumed in the United States (FDA, 2024a). FDA regulates all foods and food ingredients introduced into or offered for sale in interstate commerce, except for meat, poultry, egg products, and catfish.[1] These excluded food products are regulated by USDA's Food Safety and Inspection Service (FSIS).

FDA has primary statutory authority to establish labeling requirements for foods and food ingredients under the Federal Food, Drug, and Cosmetic Act of 1938 (FFDCA) and the Fair Packaging and Labeling Act of 1966 (USDA, Food Safety and Inspection Service, 2007). The Nutrition Labeling and Education Act of 1990 (NLEA) amended the FFDCA to give the FDA authority to require food companies to include standardized nutrition information on most packaged foods and to make certain nutrient content and health claims on food labels (FDA, 2013). Nutrition labeling has been mandatory for FDA-regulated products since 1994. Although NLEA did not address the labeling of FSIS-regulated food products, using their authority under the Federal Meat Inspection Act of 1906 and the Poultry Products Inspection Act of 1957 (USDA, FSIS, 2007), USDA, FSIS also adopted mandatory nutrition labeling requirements in 1994 for most meat and poultry products intended for human consumption and offered for sale in the marketplace.

FDA and USDA have regulatory oversight for ensuring that U.S. food labels are factual and do not mislead consumers. USDA, FSIS approves all food labels for meat and poultry products before they can be marketed in interstate commerce (USDA, FSIS, 2007). FDA has different regulatory authorities and does not preapprove FDA-regulated food labels before market entry (FDA, 2013). Instead, FDA monitors food labeling compliance primarily through postmarket surveillance activities (USDA, FSIS, 2007).

[1] For detailed information on the product categories that fall under FDA's regulatory jurisdiction, see "Producing a Food Product That is Regulated by FDA," available online.

Following the passage of NLEA, the FDA has updated the Nutrition Facts label twice. In 2003, because of the negative health effects associated with the consumption of artificial trans fats (FDA, 2003), the FDA mandated that food manufacturers declare the amount of trans fat in packaged foods on the Nutrition Facts label as of 2006. In 2016, the FDA implemented the first major update to Nutrition Facts labels in more than 20 years (FDA, 2016). This included a refreshed design and updated information to make it easier for consumers to make informed food choices that contribute to lifelong healthy eating habits. (For a summary of the key changes to Nutrition Facts labels, see box, "A Comparison of the Original and Updated Nutrition Facts Label"). Because diets high in added sugars can make it difficult to meet nutrient needs while staying within calorie limits,[1] a requirement in the 2016 Nutrition Facts final rule for food manufacturers included an added sugars declaration (FDA, 2016). Previous research found that Nutrition Facts labels have helped generate some consumer-driven improvements in diet quality (Anastasiou et al., 2019; Campos et al., 2011; Christoph et al., 2018; Kiesel et al., 2011; Kim et al., 2000; Kim et al., 2001; Ollberding et al., 2010; Variyam, 2008); and improvements in body weight status (Loureiro et al., 2012; Variyam & Cawley, 2006). There is also evidence of producer-driven improvements in nutritional quality among unhealthy product categories and when introducing new brands (Moorman et al., 2012) as well as product reformulations to reduce the presence of harmful ingredients such as artificial trans fats in the food supply (Mozaffarian et al., 2010; Rahkovsky et al., 2012; Restrepo, 2017; Restrepo, 2020).

[1] A high intake of added sugars has also been shown to be associated with lower diet quality (Louie & Tapsell, 2015).

A Comparison of the Original and Updated Nutrition Facts Label

The U.S. Food and Drug Administration (FDA) updated the Nutrition Facts label on packaged foods in 2016 to reflect updated scientific information, including the link between diet and chronic diseases such as heart disease and obesity. For food producers, compliance with the FDA updated requirements varied by firm size. Producers with $10 million or more in annual food sales were required to comply with the updated requirements by January 1, 2020. Those with less than $10 million in annual food sales were given 1 extra year to comply (January 1, 2021). Label Insight, a company that specializes in consumer buying behavior, estimated that nearly 1 in 10 food products in the U.S. food supply had adopted the updated Nutrition Facts label by the first quarter of 2018 (FDA, 2018).[1]

Original label

Nutrition Facts

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

Amount Per Serving

Calories 230	Calories from Fat 70
	% Daily Value*
Total Fat 8g	**12%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**12%**
Dietary Fiber 4g	**16%**
Sugars 12g	
Protein 3g	
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

New label

Nutrition Facts

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

Amount per serving
Calories **230**

	% Daily Value*
Total Fat 8g	**10%**
Saturated Fat 1g	**5%**
Trans Fat 0g	
Cholesterol 0mg	**0%**
Sodium 160mg	**7%**
Total Carbohydrate 37g	**13%**
Dietary Fiber 4g	**14%**
Total Sugars 12g	
Includes 10g Added Sugars	**20%**
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 240mg	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.

Source: U.S. Food and Drug Administration.

The updated Nutrition Facts label has several key changes designed to make it easier for consumers to make better informed food choices that contribute to healthy eating patterns. The serving size information is now in large, bold font and better reflects the amount that people eat and drink. Calories are also displayed in larger, bolder font. The redesigned Nutrition Facts label helps support healthy dietary patterns by providing information on nutrients of public health concern (e.g., dietary fiber, vitamin D, calcium, iron, and potassium) and on nutrients to limit, such as added sugars, saturated fat, and sodium. More information on the Nutrition Facts label is available on the New Nutrition Facts label web page on the FDA website.

[1] Drawn from Megan Sheahan's 2018 blog post, "Growing New Label Adoption Provides Transparency for Consumers," available online.

The Nutrition Facts label is one of the Federal Government's main tools for keeping consumers better informed about healthier food options. USDA has played a major role in developing the Dietary Guidelines for Americans (DGA), which provide food recommendations to promote consumers' health, help prevent diet-related chronic diseases, and meet nutrient needs. Reading food labels is one of the strategies recommended in USDA's DGA to meet nutritional needs and goals. This report used the latest publicly available, nationally representative data on adults aged 18 and older from the National Health and Nutrition Examination Survey (NHANES) to achieve two objectives. First, it built on an earlier body of research that found evidence that the Nutrition Facts label may improve diets. The updated analysis in this report quan-

tified the associations between regular Nutrition Facts label use when consumers buy packaged foods and dietary intakes. To reduce the risk of conflating the associations between regular Nutrition Facts label use and dietary behaviors with other factors, the estimates were derived controlling for a diverse set of individual, household, geographic, and interview-related characteristics. Second, the updated analysis explored which characteristics predicted regular Nutrition Facts label use when buying packaged foods.

Consumers' disparate use of nutrition information identified in this report can inform USDA's current efforts to develop strategies to encourage consumers to make healthier food choices that are better aligned with dietary guidelines, especially among consumers living in underserved communities (USDA, 2023). Identifying gaps in regular Nutrition Facts label use may also help inform FDA's current and future nutrition initiatives and related consumer education campaigns. For example, FDA recently updated the healthy nutrient content claim and is currently developing a graphic symbol that food companies could use to help consumers quickly identify packaged foods that meet the FDA definition of healthy (FDA, 2021; FDA, 2022a; FDA, 2022b; FDA, 2024b). The FDA is also developing a new front-of-package nutrition labeling system to facilitate the quick and easy identification of foods that can help consumers build a healthy dietary pattern (White House, 2022; FDA, 2023a; FDA, 2023b).

Data

This report examined data on adults aged 18 and older from the National Health and Nutrition Examination Survey (NHANES) cycles that contain information on how often adults reported using the Nutrition Facts label when buying packaged food products. The question asking respondents about how often they use the Nutrition Facts label first appeared in the 2005–06 NHANES cycle and has also appeared in the USDA, Economic Research Service (ERS)-sponsored Flexible Consumer Behavior Survey (FCBS) module of NHANES in the 2007–08, 2009–10, and 2017–March 2020 (hereafter abbreviated as 2017–20) cycles.[2] In these cycles, respondents were asked "[h]ow often do you use the Nutrition Facts panel when deciding to buy a food product?" and "[w]ould you say always, most of the time, sometimes, rarely, or never?" In this report, to be consistent with prior ERS research (Todd & Variyam, 2008), regular label users are defined as those who used the Nutrition Facts label sometimes, most of the time, or always when deciding to buy a food product. NHANES data about use of certain Nutrition Facts label components (e.g., calories, sugars, sodium, serving size, number of servings, footnote, percent daily value, and second column)[3] and other food label information (e.g., health claims, ingredients list, and expiration date) first appeared in the 2017–20 cycle.[4] Regular users of Nutrition Facts label components and other food label information are defined as those who use such information sometimes, most of the time, or always when deciding to buy a food product.

In addition to being able to assess consumers' Nutrition Facts label use and other food label information, the publicly available version of NHANES also contains detailed information on demographic and socioeconomic characteristics, as well as dietary behaviors. The sociodemographic characteristics used to develop explanatory variables for the regression analysis include age, sex, race and ethnicity, education, family income,

[2] The 2019–20 cycle is limited due to early cessation of NHANES data collection in March 2020, caused by the onset of the Coronavirus (COVID-19) pandemic. Of the 30 NHANES primary sampling units (PSUs) planned for 2019–20, only 18 were visited in 2019–March 2020. The 18 PSUs visited in 2019–March 2020 were not nationally representative, so NCHS combined the 2019–March 2020 NHANES with the 2017–2018 NHANES to create a nationally representative 2017–March 2020 prepandemic data set.

[3] The footnote appears at the bottom of the Nutrition Facts label and indicates that the percent daily value notes how much a nutrient in a serving of food contributes to a daily diet and that 2,000 calories a day is used for general nutrition advice. Some food packages contain labels with two columns. The first column has nutrient information for one serving of the food, and the second column contains information for the entire package.

[4] Health claims about the benefits of nutrients or foods include statements such as "Low fat diets rich in fruits and vegetables may reduce the risk of some types of cancer" and "Meets American Heart Association food criteria for saturated fat and cholesterol for healthy people over age 2."

marital status, country of birth, veteran status, and household size. Although a survey respondent's residential location and interview date may have influenced the use of nutrition information when buying packaged foods due to differences in food environments and seasonal demand shifters, the public NHANES files do not contain geocodes or date stamps. The report author analyzed a restricted use version of NHANES in order to control for geographic area and seasonality in the regression analysis.[5] The dietary behaviors used to develop dependent variables for the regression analysis included dietary intakes from an inperson, 24-hour dietary recall interview,[6] consumption of various prepared foods (meals not prepared at home, ready-to-eat meals, and frozen meals/pizzas), and family expenditures (i.e., total, nonfood, food at home, and food away from home).

Table 1 shows the descriptive statistics of the variables used in the analysis for the period that they are measured in the 2005–06 to 2017–20 NHANES data. Over the period that NHANES collected information on Nutrition Facts label use (i.e., 2005–10 and 2017–20 cycles), 72.3 percent of survey respondents reported that they use Nutrition Facts labels sometimes, most of the time, or always when buying packaged foods (hereafter referred to as a regular user of Nutrition Facts labels). About one-quarter of adults (27.7 percent) were not regular users of Nutrition Facts labels as they reported that they rarely used, never used, or never saw Nutrition Facts labels when buying packaged foods. When regular Nutrition Facts label use was broken down by NHANES cycle, the data indicated that regular Nutrition Facts label users grew by 17 percentage points over the 15-year sample period (2005–20), from 62 percent in 2005–06 to 79 percent in 2017–20 (p-value < 0.01) (figure 1).[7] Compared with 2005–06, regular Nutrition Facts label use was significantly higher in 2007–08 (74 percent) and 2009–10 (80 percent). Therefore, it appears that regular Nutrition Facts label use has remained steady from 2009–10 to 2017–20. Data from the intervening years were not available.

[5] Geographical variables including State, county, and census tract were used to merge census variables that provided neighborhood contextual information. State, county, and census tract are restricted-use variables, and these data were accessed through the National Center for Health Statistics (NCHS) Research Data Center.

[6] Because packaged food products are available in a wide variety of retailers, the author used intakes from all sources, whether from food-at-home establishments (e.g., supermarkets) or food-away-from-home establishments (e.g., fast-food restaurants) in the analysis.

[7] In FDA's 2019 Food Safety and Nutrition Survey (FSANS), 76 percent of people aged 18 and older reported that they use Nutrition Facts labels sometimes, most of the time, or always when they are buying a food product for the first time. This percentage is slightly smaller than the estimate of regular Nutrition Facts label use in the 2017–20 NHANES. The difference can be attributed to the difference in analysis periods and that the FSANS question asks about Nutrition Facts label use when buying a product for the first time, whereas the NHANES question asks about Nutrition Facts label use when buying a food product in general.

Table 1

Descriptive statistics, 2005–06 to 2017–March 2020 National Health and Nutrition Examination Survey, consumers aged 18 and older

	Years available	Sample size (number of respondents)	Mean or percent (SD)
Individual and household characteristics			
Age	2005–March 2020	63,807	45.875 (17.524)
Male	2005–March 2020	63,807	0.483 (0.500)
Non-Hispanic Black race	2005–March 2020	63,807	0.114 (0.318)
Not Hispanic and either Asian, American Indian/Alaska Native, Native Hawaiian/ Pacific Islander, or multiracial	2005–March 2020	63,807	0.070 (0.255)
Hispanic ethnicity	2005–March 2020	63,807	0.139 (0.346)
Highest grade completed is high school	2005–March 2020	57,673	0.239 (0.426)
Highest grade completed is some college	2005–March 2020	57,673	0.309 (0.462)
Highest grade completed is 4 years or more of college	2005–March 2020	57,673	0.280 (0.449)
Family poverty-to-income ratio	2005–March 2020	57,329	2.968 (1.649)
Married or living with partner	2005–March 2020	61,176	0.621 (0.485)
Born in the United States	2005–March 2020	63,758	0.831 (0.375)
Veteran	2005–March 2020	63,138	0.111 (0.314)
Household size	2005–March 2020	63,172	3.051 (1.551)
Geographic characteristics			
Large metropolitan area	2005–March 2020	63,782	0.530 (0.499)
Small/medium metropolitan area	2005–March 2020	63,782	0.297 (0.457)
Nonmetropolitan area	2005–March 2020	63,782	0.173 (0.378)
Urban area	2005–March 2020	60,919	0.823 (0.382)
Rural area	2005–March 2020	60,919	0.177 (0.382)
Dietary intake measures			
Energy (kcal)	2005–March 2020	55,457	2,199.310 (1,011.732)
Total fat (kcal)	2005–March 2020	55,457	757.979 (424.027)
Total saturated fat (kcal)	2005–March 2020	55,457	248.635 (153.786)
Alcohol (kcal)	2005–March 2020	55,457	82.229 (214.432)
Total sugars (kcal)	2005–March 2020	51,534	475.229 (329.176)
Sodium (mg)	2005–March 2020	55,457	3,551.512 (1,838.165)
Dietary behavior measures			
Number of meals not home prepared in past 7 days	2007–March 2020	40,736	3.770 (4.069)
Number of ready-to-eat foods in past 30 days	2007–March 2020	40,677	2.027 (5.961)
Number of frozen meals/pizzas in past 30 days	2007–March 2020	40,710	2.699 (6.664)

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	Years available	Sample size (number of respondents)	Mean or percent (SD)
Spending behavior measures			
Total food spending	2007–March 2020	37,009	$681.120 ($514.726)
Nonfood spending in grocery stores or supermarkets	2007–March 2020	37,941	$44.299 ($73.540)
Spending on food at home	2007–March 2020	37,810	$477.260 ($376.348)
Spending on food away from home	2007–March 2020	37,698	$203.958 ($285.611)
Nutrition information use measures			
Regularly use Nutrition Facts label	2005–10 and 2017–March 2020	21,724	0.723 (0.447)
Regularly use calorie information on food labels	2017–March 2020	6,485	0.736 (0.441)
Regularly use sugars information on food labels	2017–March 2020	6,482	0.733 (0.443)
Regularly use sodium information on food labels	2017–March 2020	6,486	0.664 (0.472)
Regularly use expiration date on food labels	2017–March 2020	6,489	0.916 (0.277)
Regularly use health claims on food labels	2017–March 2020	6,486	0.591 (0.492)
Regularly use ingredients list on food labels	2017–March 2020	6,490	0.706 (0.456)
Regularly use serving size information on food labels	2017–March 2020	6,490	0.628 (0.483)
Regularly use number of servings on food labels	2017–March 2020	6,489	0.645 (0.478)
Regularly use footnote on food labels	2017–March 2020	6,485	0.336 (0.472)
Regularly use percent daily value on food labels	2017–March 2020	6,487	0.576 (0.494)
Regularly use second column on food labels	2017–March 2020	6,485	0.389 (0.488)

SD = standard deviation.

kcal = kilocalories.

mg = milligrams.

* = statistically significant at the 10-percent level.

** = statistically significant at the 5-percent level.

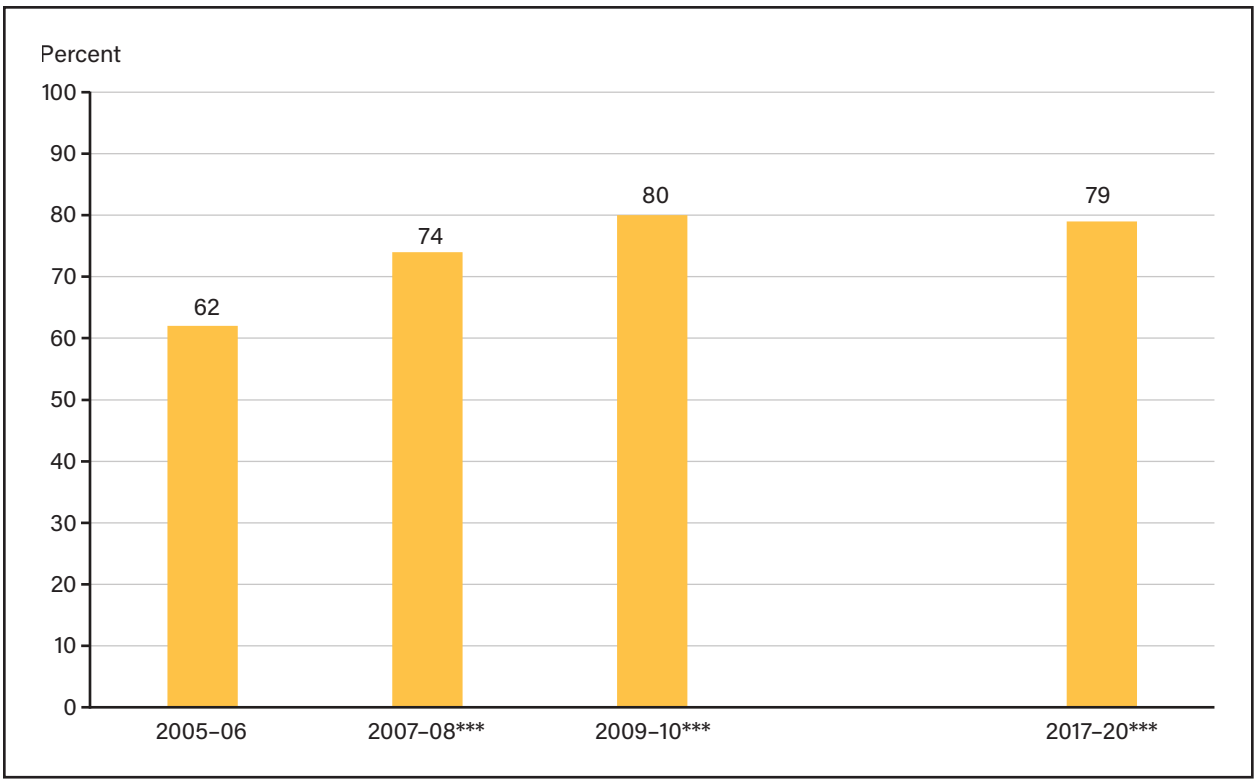
*** = statistically significant at the 1-percent level.

Note: These summary statistics were generated using the appropriate National Health and Nutrition Examination Survey sampling weights, strata, and primary sampling units. NHANES cycles used in this analysis: 2005–06, 2007–08, 2009–10, and 2017–20.

Source: USDA, Economic Research Service using data from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, NHANES data; and USDA, ERS Flexible Consumer Behavior Survey module data.

Figure 1

Percentage of adults 18 and older who regularly use the Nutrition Fact label when buying packaged food products

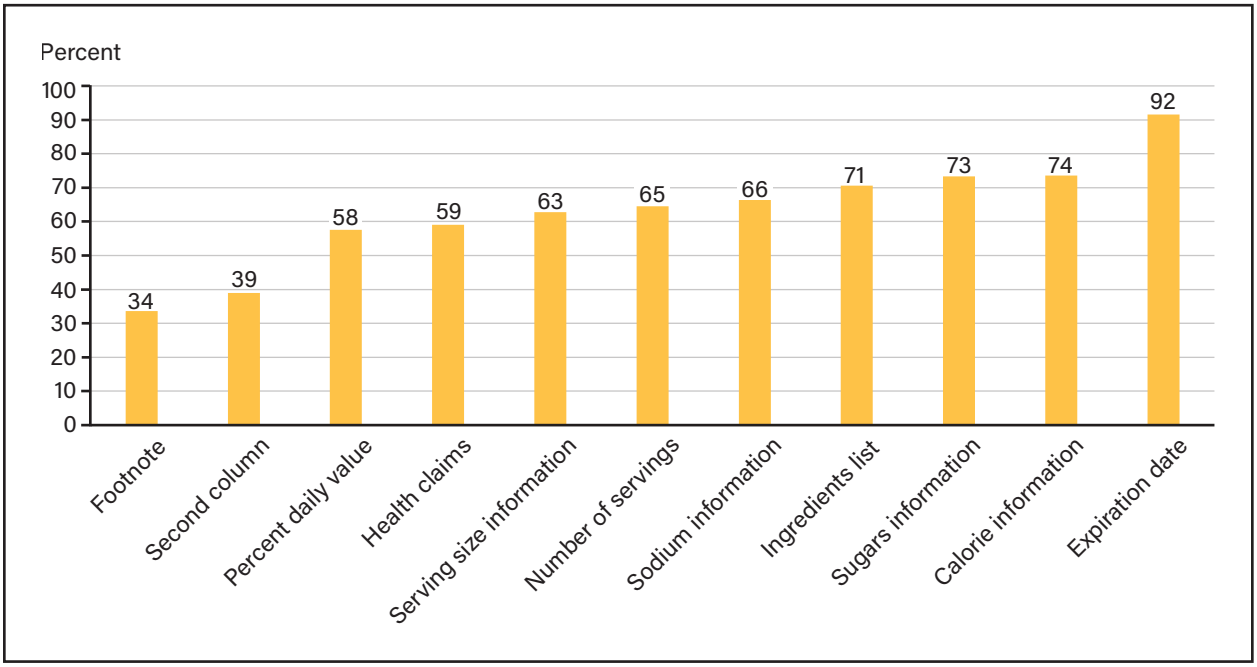


Note: The triple asterisk (***) indicates that the difference between the given National Health and Nutrition Examination Survey (NHANES) cycle and the 2005–06 NHANES cycle is statistically significant at the 1-percent level. These estimates were generated using the appropriate NHANES sampling weights, strata, and primary sampling units. NHANES cycles used in this analysis: 2005–06, 2007–08, 2009–10, and 2017–20.

Source: USDA, Economic Research Service (ERS) using data from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey (NHANES) data; and USDA, ERS Flexible Consumer Behavior Survey module data.

The latest NHANES cycle (2017–20) also contains information on regular use of the various Nutrition Facts label components as well as other information found on packaged food labels. The data indicated substantial heterogeneity in regular consumer use of the different types of information available on packaged food labels. For instance, while nearly three in four adults reported that they regularly use calorie information (74 percent) and sugars information (73 percent), a smaller share of adults reported that they use sodium information (66 percent) and health claims (59 percent) (figure 2). A smaller percentage of adults regularly use such Nutrition Facts label components as the footnote (34 percent) and the second column (39 percent). Health claims, the ingredients list, and the expiration date are not noted on the Nutrition Facts labels themselves, but they are sometimes included on packaged food labels. Although these types of information have not been part of the Nutrition Facts label, people who regularly use Nutrition Facts labels may be likely to regularly use other information available on the food label. Therefore, the association between regular Nutrition Facts label use and all types of information available on the food label are examined in this report.

Figure 2
Percentage of adults 18 and older who regularly use various types of food label information when buying packaged food products



Note: These estimates were generated using the appropriate National Health and Nutrition Examination Survey (NHANES) sampling weights, strata, and primary sampling units. NHANES cycles used in this analysis: 2017–20.

Source: USDA, Economic Research Service (ERS) using data from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, National Health and Nutrition Examination Survey data; and USDA, ERS Flexible Consumer Behavior Survey module data.

Methods

Using the latest NHANES data, the objective of this report is twofold. First, the author quantified the associations between regular Nutrition Facts label use and a wide range of dietary intakes, which were conditional on a diverse set of individual, household, geographic, and interview-related characteristics. This first part of the analysis aimed to uncover the potential dietary benefits associated with regularly consulting nutrition information available on packaged food products. Second, the author analyzed and identified the characteristics that predicted regular Nutrition Facts label use and specific types of packaged food label information. This second part of the analysis was intended to inform education campaigns aimed at increasing consumers' use of nutrition information when buying packaged foods.

To achieve the first objective, the following linear regression model was specified:

$$D_i = \alpha_0 + \alpha_1 NFL\ Regular\ User_i + X_i'\alpha_2 + Z_i'\alpha_3 + u_i, \quad (1)$$

where D_i is one of several dietary intake measures of respondent i; $NFL\ Regular\ User_i$ is an indicator variable equal to 1 if respondent i reported that they regularly use Nutrition Facts labels when buying packaged food products; X_i is a set of individual, household, and geographic characteristics that reduce the risk of confounding the associations between regular Nutrition Facts label use and dietary behaviors with other factors; Z_i represents a set of characteristics associated with the interview, including interview month and survey cycle dummies, which controlled for changes in dietary behaviors over time that are common across U.S. consumers; and u_i is an idiosyncratic error term. In equation 1, the coefficient of interest is α_1, which measures the size of the conditional associations between regular Nutrition Facts label use and dietary behaviors.

To explore and identify the characteristics that predict regular Nutrition Facts label use and other types of information on packaged food labels, the author used the following probit regression model,

$$Regular\ User\ of\ Packaged\ Food\ Label\ Information_i = \beta_0 + X_i'\beta_1 + Z_i'\beta_2 + v_i, \quad (2)$$

where everything is defined as before, except that the dependent variable now refers to regular use of components of the Nutrition Facts label (e.g., calories) or other types of packaged food label information (e.g., health claims). In equation 2, the coefficients of interest are those in the coefficient vector β_1, which measures the sizes of the conditional associations between demographic, socioeconomic, and geographic characteristics, and regular Nutrition Facts label use. When estimating equations 1 and 2, the author used the appropriate sampling weights, strata, and primary sampling units to generate nationally representative estimates and accurate standard errors.

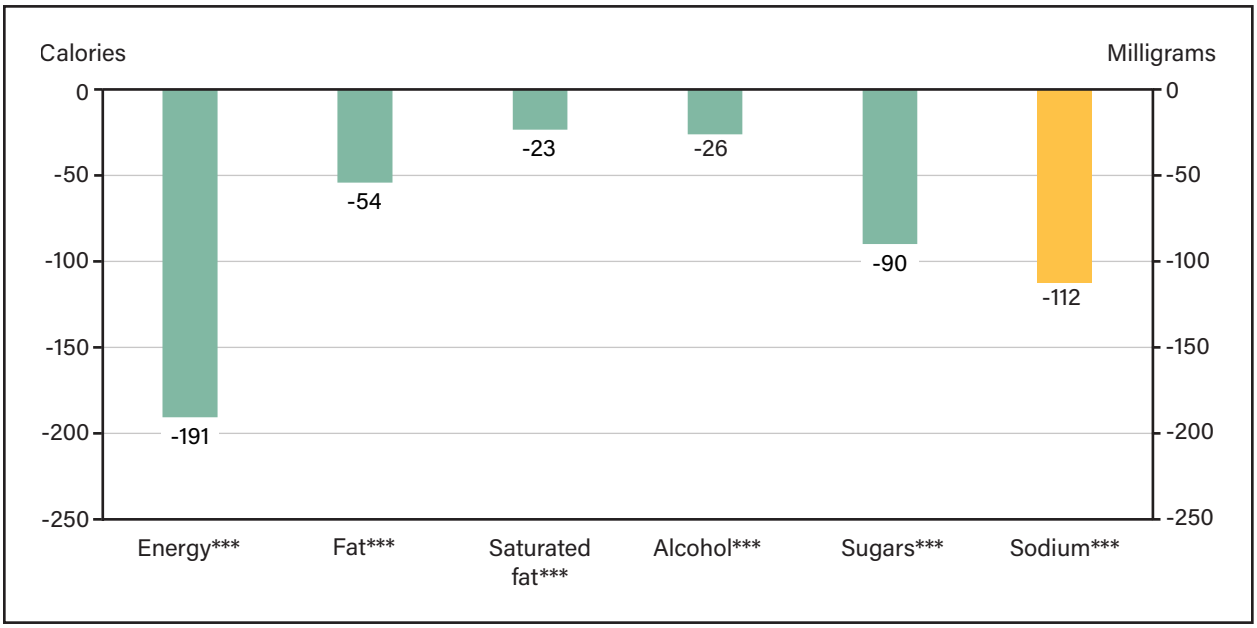
Results

Figure 3 presents estimates of the conditional associations between regular Nutrition Facts label use and dietary intakes.[8] Regular Nutrition Facts label use is strongly associated with all diet-related measures from 24-hour dietary recall interviews. Holding all else constant, compared with adults who do not regularly use Nutrition Facts labels, those who regularly use them reported lower daily intakes of energy (-191 calories), fat (-54 calories), saturated fat (-23 calories), alcohol (-26 calories), sugars (-90 calories), and sodium (-112 milligrams). Compared with sample means (see table 1), the absolute values of these estimates are large in magnitude, which translate to differences of 9 percent (191/2,199 calories), 7 percent (54/758 calories), 9 percent (23/249 calories), 32 percent (26/82 calories), 19 percent (90/475 calories), and 3 percent (112/3,552 calories), respectively.[9]

[8] For the full set of regression estimates, see supplemental data table A.1 which is posted alongside this report on the USDA, ERS website.

[9] Alcoholic beverages are regulated by the Alcohol and Tobacco Tax and Tax Bureau (TTB). Although TTB regulations do not require nutrient content labeling for alcohol beverages, some manufacturers voluntarily provide Nutrition Facts labels on their products. Alcohol calories are included in the analysis to explore whether regular Nutrition Facts label use is associated with lower consumption of alcohol calories.

Figure 3
Regular Nutritional Facts label use is associated with healthier dietary intakes



Note: The triple asterisk (***) indicates that the estimate associated with being a regular Nutrition Facts label user is statistically significant at the 1-percent level. These estimates were generated using the appropriate National Health and Nutrition Examination Survey (NHANES) sampling weights, strata, and primary sampling units. NHANES cycles used in this analysis: 2005–06, 2007–08, 2009–10, and 2017–20.

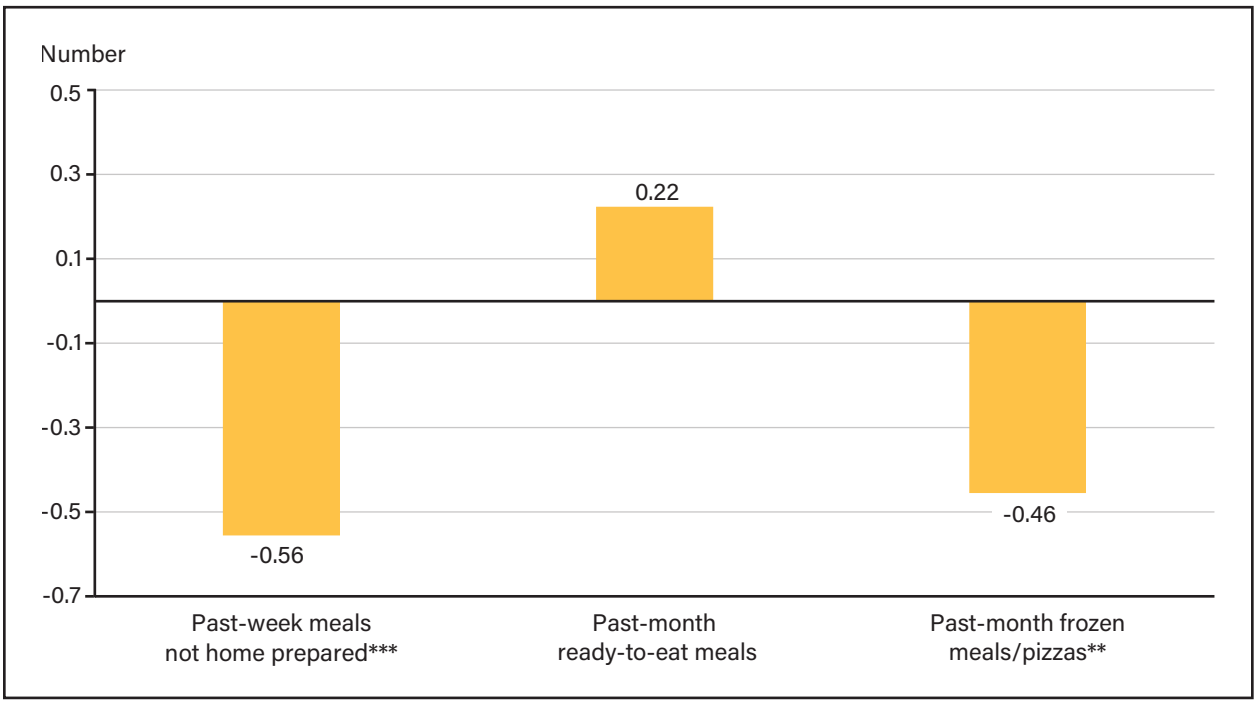
Source: USDA, Economic Research Service (ERS) using data from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, NHANES data; and USDA, ERS Flexible Consumer Behavior Survey module data.

Figure 4 presents estimates of the conditional associations between regular Nutrition Facts label use and prepared food intakes.[10] Holding all else constant, regular Nutrition Facts label use is associated with lower intakes of meals that were not prepared at home (i.e., 0.6 fewer meals per week or by 16 percent of the sample mean) and frozen meals/pizzas (i.e., 0.5 fewer meals/pizzas per month or by 19 percent of the sample mean). By contrast, the estimate of the conditional association between regular Nutrition Facts label use and ready-to-eat meals is statistically insignificant.

[10] For the full set of regression estimates, see supplemental data table A.2 which is posted alongside this report on the USDA, ERS website.

Figure 4

Regular Nutrition Facts label use is associated with lower intakes of meals not prepared at home and frozen meals/pizzas



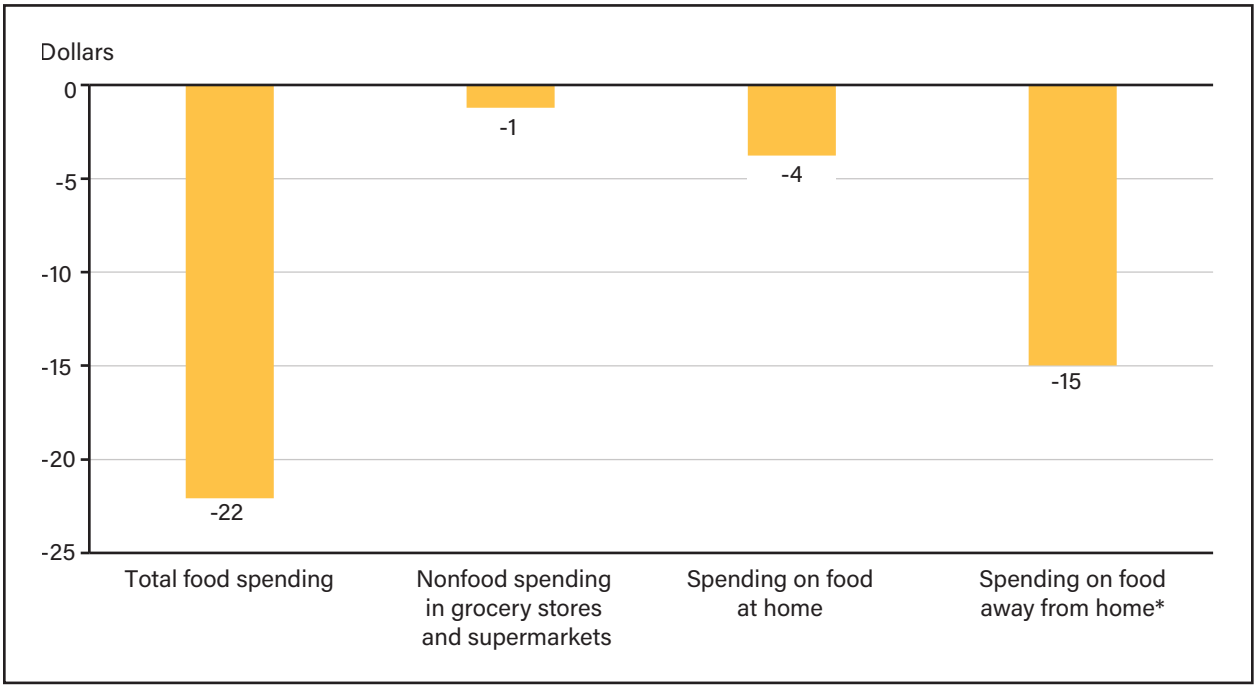
Note: The triple asterisk (***) indicates that the estimate associated with being a regular Nutrition Facts label user is statistically significant at the 1-percent level. The double asterisk (**) indicates that the estimate associated with being a regular Nutrition Facts label user is statistically significant at the 5-percent level. These estimates were generated using the appropriate National Health and Nutrition Examination Survey (NHANES) sampling weights, strata, and primary sampling units. NHANES cycles used in this analysis: 2007–08, 2009–10, and 2017–20.

Source: USDA, Economic Research Service (ERS) using data from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, NHANES data; and USDA, ERS, Flexible Consumer Behavior Survey module data.

Figure 5 shows estimates of the conditional associations between regular Nutrition Facts label use, food spending, and nonfood spending.[11] Holding all else constant, the analysis indicated that with the exception of food-away-from-home (FAFH) spending, which was estimated to be around $15 lower per month among regular Nutrition Facts label users (or 7 percent of the sample mean), no statistically significant differences were found in total food spending, nonfood spending, and food-at-home (FAH) spending.

[11] For the full set of regression estimates, see supplemental data table A.3 which is posted alongside this report on the USDA, ERS website.

Figure 5
Regular use of the Nutrition Facts label is associated with lower food-away-from-home spending



Note: The asterisk (*) indicates that the estimate associated with being a regular Nutrition Facts label user is statistically significant at the 10-percent level. These estimates were generated using the appropriate National Health and Nutrition Examination Survey (NHANES) sampling weights, strata, and primary sampling units. NHANES cycles used in this analysis: 2007–08, 2009–10, and 2017–20.

Source: USDA, Economic Research Service (ERS) using data from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, NHANES data; and USDA, ERS Flexible Consumer Behavior Survey module data.

Previous research indicated that higher FAFH consumption tends to reduce diet quality among adults. Todd et al. (2010) found that, on average, every FAFH meal consumed lowered adult diet quality as measured by the USDA's Healthy Eating Index (HEI) by about 2 points or about 4 percent of average HEI (51.50 out of a maximum score of 100) in their estimation sample. Therefore, the lower FAFH intake levels (figure 4) and FAFH spending levels (figure 5) among regular Nutrition Facts label users suggest that they have healthier dietary behaviors than those who do not regularly consult Nutrition Facts labels when deciding which packaged foods to buy.

Taken together, the results in figures 3–5 suggest that a wide range of potential dietary benefits may be associated with regular Nutrition Facts label use. One interpretation of these findings is that the nutrition information available on Nutrition Facts labels helps shoppers select and consume healthier packaged foods. However, it is also possible that shoppers with healthier diets are more likely to seek out the nutrition information available on Nutrition Facts labels to find the foods that meet their healthier dietary preferences.

Using data from the 2017–20 NHANES cycle, the analysis summarized in table 2 identifies the characteristics that predict regular use of the Nutrition Facts label overall and specific types of food label information when buying packaged foods.[12] The most pronounced disparities were by sex, race and ethnicity, education, income, and geographic area.

[12] Table 2 presents marginal effect estimates from probit model regressions, which measure the change in the probability of regular use of nutrition information for a unit change in a given explanatory variable, while holding all other explanatory variables constant.

Table 2

The estimated associations between consumer characteristics and regular use of the Nutrition Facts label and other food label information

Dependent variable	Regularly use Nutrition Facts label	Regularly use calorie information	Regularly use sugars information	Regularly use sodium information	Regularly use expiration date	Regularly use health claims
Sample mean	$\bar{x}$ = 0.790	$\bar{x}$ = 0.739	$\bar{x}$ = 0.733	$\bar{x}$ = 0.666	$\bar{x}$ = 0.917	$\bar{x}$ = 0.593
Age	-0.00048	-0.00433	-0.00318	-0.00123	-0.00259	0.0049
	(0.00279)	(0.00302)	(0.00328)	(0.00353)	(0.00192)	(0.00360)
Age squared	0.00002	0.00004	0.00005	0.00005	0.00001	-0.00001
	(0.00003)	(0.00003)	(0.00003)	(0.00004)	(0.00002)	(0.00004)
Male	-0.13415***	-0.17071***	-0.13869***	-0.09955***	-0.04294***	-0.11626***
	(0.01590)	(0.01729)	(0.01845)	(0.02021)	(0.01126)	(0.02092)
Non-Hispanic Black race	-0.01782	0.0044	-0.02247	0.10831***	0.00005	0.12991***
	(0.01757)	(0.01977)	(0.02102)	(0.02380)	(0.01268)	(0.02402)
Not Hispanic and either Asian, American Indian/ Alaska Native, Native Hawaiian/Pacific Islander, or multiracial	0.00854	-0.00955	0.00539	0.10141***	0.00826	0.11324***
	(0.02552)	(0.02782)	(0.02934)	(0.03058)	(0.01873)	(0.03335)
Hispanic ethnicity	0.06093***	0.05376**	0.09584***	0.09777***	0.00347	0.10783***
	(0.02305)	(0.02507)	(0.02673)	(0.02809)	(0.01702)	(0.02878)
Highest grade completed is high school	0.04120*	0.05323**	0.04954*	0.07553**	0.03823***	0.02791
	(0.02190)	(0.02468)	(0.02711)	(0.02988)	(0.01442)	(0.03129)
Highest grade completed is some college	0.09512***	0.08551***	0.11059***	0.08694***	0.03773***	0.06795**
	(0.02172)	(0.02415)	(0.02613)	(0.02909)	(0.01427)	(0.03031)
Highest grade completed is 4 years or more of college	0.21011***	0.19456***	0.17109***	0.10654***	0.03688**	0.08063**
	(0.02638)	(0.02848)	(0.03072)	(0.03366)	(0.01606)	(0.03472)
Family poverty-to-income ratio	0.01614***	0.02439***	0.01168*	0.02096***	0.00588*	-0.01115
	(0.00547)	(0.00595)	(0.00669)	(0.00707)	(0.00331)	(0.00721)
Married or living with a partner	0.01404	0.03943**	0.01067	0.00981	0.01005	0.02591
	(0.01709)	(0.01906)	(0.02005)	(0.02141)	(0.01173)	(0.02215)
Born in the United States	0.05928**	-0.00157	0.02502	0.04455	0.04585***	-0.03922
	(0.02306)	(0.02505)	(0.02754)	(0.02836)	(0.01714)	(0.02953)

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Dependent variable	Regularly use Nutrition Facts label	Regularly use calorie information	Regularly use sugars information	Regularly use sodium information	Regularly use expiration date	Regularly use health claims
Sample mean	$\bar{x}$ = 0.790	$\bar{x}$ = 0.739	$\bar{x}$ = 0.733	$\bar{x}$ = 0.666	$\bar{x}$ = 0.917	$\bar{x}$ = 0.593
Veteran	0.02029	0.05395*	-0.03088	-0.01193	-0.00634	0.02561
	(0.02681)	(0.02963)	(0.03136)	(0.03472)	(0.01710)	(0.03673)
Household size	-0.01540***	-0.01695***	-0.00882	-0.00884	0.0004	-0.01142
	(0.00559)	(0.00619)	(0.00668)	(0.00712)	(0.00388)	(0.00739)
Interview month = February	0.01856	0.04606	0.01281	-0.02686	-0.03561	0.05743
	(0.03641)	(0.03998)	(0.04244)	(0.04554)	(0.02227)	(0.04645)
Interview month = March	0.04629	0.06352	0.04735	0.01128	-0.01857	0.06735
	(0.03833)	(0.04125)	(0.04406)	(0.04741)	(0.02061)	(0.04745)
Interview month = April	-0.01315	0.02486	-0.03908	-0.01941	-0.02723	0.07921
	(0.04273)	(0.04454)	(0.04978)	(0.05174)	(0.02732)	(0.05146)
Interview month = May	0.03012	0.04168	0.00233	-0.09693*	-0.02299	0.02425
	(0.04541)	(0.04505)	(0.04848)	(0.05461)	(0.02658)	(0.05363)
Interview month = June	0.06507*	0.06452	0.06393	0.07443	0.0082	0.15460***
	(0.03641)	(0.04278)	(0.04320)	(0.04530)	(0.01990)	(0.04727)
Interview month = July	0.03722	0.05511	0.08722*	0.03502	-0.02983	0.10019*
	(0.04495)	(0.04792)	(0.04787)	(0.05300)	(0.02741)	(0.05448)
Interview month = August	0.02643	0.03526	0.04124	0.03893	-0.00293	0.08304*
	(0.04322)	(0.04558)	(0.04715)	(0.04936)	(0.02292)	(0.05013)
Interview month = September	0.09057**	0.08301**	0.05626	0.01606	-0.0054	0.01083
	(0.03620)	(0.04224)	(0.04795)	(0.05154)	(0.02091)	(0.05244)
Interview month = October	0.06818*	0.04943	0.02758	0.00805	-0.0376	0.0749
	(0.03922)	(0.04263)	(0.04627)	(0.05036)	(0.02766)	(0.05145)
Interview month = November	0.0276867	0.02838	0.06527	-0.00872	-0.05143*	0.09513*
	(0.03990)	(0.04656)	(0.04463)	(0.05077)	(0.03099)	(0.05343)
Interview month = December	-0.04163	-0.01645	-0.00892	-0.07086	0.00266	0.04472
	(0.04692)	(0.04976)	(0.05156)	(0.05628)	(0.02581)	(0.05725)
Small/medium metropolitan area	-0.00976	0.01383	0.0084	0.02083	0.01059	0.03155
	(0.01725)	(0.01912)	(0.01995)	(0.02222)	(0.01151)	(0.02317)

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Dependent variable	Regularly use Nutrition Facts label	Regularly use calorie information	Regularly use sugars information	Regularly use sodium information	Regularly use expiration date	Regularly use health claims
Sample mean	$\bar{x}$ = 0.790	$\bar{x}$ = 0.739	$\bar{x}$ = 0.733	$\bar{x}$ = 0.666	$\bar{x}$ = 0.917	$\bar{x}$ = 0.593
Nonmetropolitan area	-0.09115***	-0.07962***	-0.07572**	-0.09881***	-0.04249**	-0.06963**
	(0.02731)	(0.02988)	(0.03143)	(0.03292)	(0.01996)	(0.03297)
Observations	5,102	5,098	5,096	5,100	5,102	5,098

* = statistically significant at the 10-percent level.

** = statistically significant at the 5-percent level.

*** = statistically significant at the 1-percent level.

Note: These probit regression coefficient estimates of marginal effects and the associated standard errors were generated using the appropriate National Health and Nutrition Examination Survey sampling weights, strata, and primary sampling units. NHANES cycles used in this analysis: 2017–20.

Source: USDA, Economic Research Service using data from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, NHANES data; and USDA, ERS Flexible Consumer Behavior Survey module data.

Table 2

The estmated associations between consumer characteristics and regular use of the Nutrition Facts label and other food label information (continued)

Dependent variable	Regularly use ingredients list	Regularly use serving size	Regularly use number of servings	Regularly use footnote	Regularly use percent daily value	Regularly use second column
Sample mean	$\bar{x}$ = 0.707	$\bar{x}$ = 0.630	$\bar{x}$ = 0.645	$\bar{x}$ = 0.332	$\bar{x}$ = 0.569	$\bar{x}$ = 0.385
Age	0.00434	0.00402	0.00476	0.00005	-0.00039	-0.00842**
	(0.00334)	(0.00358)	(0.00359)	(0.00345)	(0.00373)	(0.00356)
Age squared	-0.00002	-0.00001	-0.00002	0.00006*	0.00004	0.00007**
	(0.00003)	(0.00004)	(0.00004)	(0.00003)	(0.00004)	(0.00004)
Male	-0.12888***	-0.14619***	-0.13792***	-0.05851***	-0.03726*	-0.0307
	(0.01860)	(0.02049)	(0.02072)	(0.02016)	(0.02193)	(0.02134)
Non-Hispanic Black race	0.01048	0.00168	-0.00016	0.07908***	0.05514**	0.07881*
	(0.02175)	(0.02343)	(0.02374)	(0.02197)	(0.02442)	(0.02362)
Not Hispanic and either Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, or multiracial	0.08975***	0.06242*	0.04835	0.03762	0.03446	0.07223**
	(0.03035)	(0.03271)	(0.03284)	(0.02955)	(0.03388)	(0.03221)
Hispanic ethnicity	0.01988	0.03918	0.03489	0.05592**	0.07941***	0.09050***
	(0.02627)	(0.02867)	(0.02883)	(0.02646)	(0.02916)	(0.02796)
Highest grade completed is high school	0.03963	0.04377	0.03128	-0.01553	-0.00917	0.03483
	(0.02823)	(0.03109)	(0.03103)	(0.02921)	(0.03202)	(0.03145)

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Dependent variable	Regularly use ingredients list	Regularly use serving size	Regularly use number of servings	Regularly use footnote	Regularly use percent daily value	Regularly use second column
Sample mean	$\bar{x}$ = 0.707	$\bar{x}$ = 0.630	$\bar{x}$ = 0.645	$\bar{x}$ = 0.332	$\bar{x}$ = 0.569	$\bar{x}$ = 0.385
Highest grade completed is some college	0.10327***	0.03716	0.04491	0.00422	0.08359***	0.06204**
	(0.02787)	(0.03049)	(0.02973)	(0.02811)	(0.03087)	(0.03042)
Highest grade completed is 4 years or more of college	0.16654***	0.03674	0.01928	-0.00758	0.11756***	0.05483
	(0.03159)	(0.03486)	(0.03414)	(0.03221)	(0.03535)	(0.03446
Family poverty-to-income ratio	-0.01183*	0.01527**	0.01345*	-0.01235*	0.00103	-0.01391*
	(0.00659)	(0.00711)	(0.00742)	(0.00667)	(0.00742)	(0.00727)
Married or living with a partner	0.02039	-0.00584	0.00636	0.02138	0.01508	0.02498
	(0.02040)	(0.02223)	(0.02247)	(0.02136)	(0.02301)	(0.02195)
Born in the United States	0.01765	0.01912	-0.00533	-0.10601***	-0.06306**	-0.04688*
	(0.02683)	(0.02881)	(0.02887)	(0.02575)	(0.02983)	(0.02764)
Veteran	-0.01608	-0.03347	-0.02187	-0.01253	0.0403	0.01593
	(0.03271)	(0.03494)	(0.03565)	(0.03618)	(0.03770)	(0.03667)
Household size	-0.02267***	-0.01445*	-0.00909	0.00012	-0.0091	-0.01646**
	(0.00667)	(0.00738)	(0.00742)	(0.00704)	(0.00758)	(0.00750)
Interview month = February	-0.03362	-0.0136	-0.03833	-0.00627	-0.01089	-0.05914
	(0.04121)	(0.04400)	(0.04705)	(0.04242)	(0.04703)	(0.04682)
Interview month = March	-0.01994	-0.07022	-0.06034	0.02872	0.06963	-0.0296
	(0.04245)	(0.04757)	(0.04934)	(0.04246)	(0.04879)	(0.04844
Interview month = April	-0.05126	-0.04762	-0.03464	-0.01729	-0.00479	-0.10546**
	(0.04622)	(0.04999)	(0.05132)	(0.04490)	(0.05307)	(0.04892)
Interview month = May	-0.04214	-0.06879	-0.05683	0.05984	-0.06828	-0.03936
	(0.04788)	(0.05195)	(0.05266)	(0.04840)	(0.05520)	(0.05186)
Interview month = June	0.01123	0.0126	0.0071	0.09725**	0.03246	-0.00254
	(0.04305)	(0.04612)	(0.04775)	(0.04661)	(0.04987)	(0.05103)
Interview month = July	0.00609	-0.03246	-0.03068	0.03838	0.05286	0.00984
	(0.04988)	(0.05456)	(0.05534)	(0.04891)	(0.05499)	(0.05501)
Interview month = August	0.01797	-0.00665	-0.06028	0.07442	0.02908	-0.04412
	(0.04442)	(0.04931)	(0.05071)	(0.04618)	(0.05154)	(0.05078)

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Dependent variable	Regularly use ingredients list	Regularly use serving size	Regularly use number of servings	Regularly use footnote	Regularly use percent daily value	Regularly use second column
Sample mean	$\bar{x}$ = 0.707	$\bar{x}$ = 0.630	$\bar{x}$ = 0.645	$\bar{x}$ = 0.332	$\bar{x}$ = 0.569	$\bar{x}$ = 0.385
Interview month = September	0.02319	0.02098	0.00518	-0.0046	0.00682	0.00004
	(0.04638)	(0.05080)	(0.05024)	(0.04651)	(0.05415)	(0.05449)
Interview month = October	0.00187	-0.0443	-0.02911	0.09594**	0.01346	0.0407
	(0.04581)	(0.04998)	(0.05085)	(0.04862)	(0.05247)	(0.05341)
Interview month = November	0.03068	-0.04158	-0.04834	0.0749	0.07079	0.0450
	(0.04500)	(0.05124)	(0.05260)	(0.05025)	(0.05382)	(0.05640)
Interview month = December	-0.08724*	-0.04228	-0.05723	0.06233	-0.12477**	0.00805
	(0.05081)	(0.05989)	(0.06187)	(0.05151)	(0.05703)	(0.05757)
Small/medium metropolitan area	0.01332	-0.00184	0.01645	-0.00005	0.04810**	0.0057
	(0.02062)	(0.02351)	(0.02328)	(0.02213)	(0.02383)	(0.02331)
Nonmetropolitan area	-0.07335**	-0.05900*	-0.01596	-0.03759	-0.00507	-0.03238
	(0.03098)	(0.03314)	(0.03278)	(0.03039)	(0.03373)	(0.03187
Observations	5,102	5,102	5,101	5,099	5,100	5,098

* = statistically significant at the 10-percent level.

** = statistically significant at the 5-percent level.

*** = statistically significant at the 1-percent level.

Note: These probit regression coefficient estimates of marginal effects and the associated standard errors were generated using the appropriate National Health and Nutrition Examination Survey sampling weights, strata, and primary sampling units. NHANES cycles used in this analysis: 2017–20.

Source: USDA, Economic Research Service using data from the U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, National Center for Health Statistics, NHANES data; and USDA, ERS Flexible Consumer Behavior Survey module data.

Sex

Holding all else constant, men are significantly less likely than women to regularly use Nutrition Facts labels when deciding which packaged foods to buy. In 2017–20, the results indicated that men are 13 percentage points less likely than women to regularly use Nutrition Facts labels. Similar gaps by sex emerge for most of the Nutrition Facts label components and other specific types of packaged food label information, including regular use of information about calories (17 percentage points), sugars (14 percentage points), sodium (10 percentage points), expiration date (4 percentage points), health claims (12 percentage points), ingredients list (13 percentage points), serving size (15 percentage points), number of servings (14 percentage points), footnote (6 percentage points), and percent daily value (4 percentage points).

Racial and Ethnic Groups

Holding all else constant, certain racial and ethnic groups were found to be more likely to regularly use the Nutrition Facts label when buying packaged foods than non-Hispanic White consumers. In 2017–20, compared with non-Hispanic White consumers, non-Hispanic Black consumers were more likely to regularly use information about sodium (11 percentage points), health claims (13 percentage points), footnote (8 percentage points), percent daily value (6 percentage points), and the second column (8 percentage points). Individuals who reported not being Hispanic and being either Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, or multiracial were more likely than non-Hispanic White consumers to regularly use information about sodium (10 percentage points), health claims (11 percentage points), ingredients list (9 percentage points), serving size (6 percentage points), and the second column (7 percentage points). Hispanic consumers of all races were more likely than non-Hispanic White consumers to regularly use Nutrition Facts labels (6 percentage points) and information about calories (5 percentage points), sugars (10 percentage points), sodium (10 percentage points), health claims (11 percentage points), footnote (6 percentage points), percent daily value (8 percentage points), and the second column (9 percentage points).

Education

Holding all else constant, regular Nutrition Facts label use was found to increase with educational attainment. In 2017–20, compared with adults who did not complete high school, those who completed high school, some college, or 4 years or more of college were more likely to be regular Nutrition Facts label users by 4 percentage points, 10 percentage points, and 21 percentage points, respectively. Similar positive education gradients were found in regular use of most of the components of Nutrition Facts labels and other types of packaged food label information. This finding indicates that adults with higher levels of education seek out nutrition information when buying packaged foods more often than adults with lower levels of education.

Income

Holding all else constant, there was a positive income gradient that mirrors the positive education gradient in consumers' regular Nutrition Facts label use. In 2017–20, a 1-unit rise in the family poverty-to-income ratio increased the likelihood of regularly using the Nutrition Facts label by nearly 2 percentage points.[13] Similar positive income gradients were found for regular use of information about calories (2.4 percentage points), sugars (1.2 percentage points), sodium (2.1 percentage points), expiration date (1 percentage point), serving size (1.5 percentage points), and number of servings (1.3 percentage points).

Geographic Area

Holding all else constant, in 2017–20, adults living in nonmetropolitan areas were 9 percentage points less likely than adults living in large metropolitan areas to regularly use Nutrition Facts labels. Similar geographic gaps were found for regular use of information about calories (8 percentage points), sugars (8 percentage points), sodium (10 percentage points), expiration date (4 percentage points), health claims (7 percentage points), ingredients list (7 percentage points), and serving size (6 percentage points).

[13] The family poverty-to-income ratio ranges from 0 (meaning no family income) to 5 (meaning family income is 5 times the Federal poverty level). A family poverty-to-income ratio of 1 means that family income is exactly at the Federal poverty level.

Discussion

A previous USDA, Economic Research Service (ERS) report examined how regular Nutrition Facts label use changed in the decade after the Nutrition Labeling and Education Act of 1990 took effect in 1994. Consumer use of the Nutrition Facts label fell from 65 percent in 1995–96 to 62 percent in 2005–06, although the difference was not statistically significant (Todd & Variyam, 2008). By contrast, the more recent analysis documented in this report shows that regular Nutrition Facts label use significantly increased from 62 percent in 2005–06 to 79 percent in 2017–20. It remains unclear which factors drove this increase in regular Nutrition Facts label use. The U.S Food and Drug Administration's (FDA) 2003 updates to Nutrition Facts labels, however, may have encouraged more consumers to increase their use of the information on the labels when buying packaged foods. Even though some food manufacturers engaged in early adoption of FDA's 2016 Nutrition Facts label updates (FDA, 2018), food manufacturers likely played a lesser role in this report's findings because compliance with the Nutrition Facts label updates was not mandatory until January 1, 2020 (for larger food producers) and January 1, 2021 (for smaller food producers). (See box, "A Comparison of the Original and Updated Nutrition Facts Label" and note that the data used in this report have an endpoint of March 2020).

With nearly 2 in 10 adults not regularly using Nutrition Facts labels when buying packaged foods in 2017–March 2020, room exists to increase adults' use of nutrition information when buying packaged foods. The author's findings suggest there may be a wide range of diet-related benefits for consumers who regularly use Nutrition Facts labels when buying packaged foods. Analyzing four National Health and Nutrition Examination Survey (NHANES) data cycles (i.e., 2005–06, 2007–08, 2009–10, and 2017–20) shows that regular Nutrition Facts label users have significantly lower daily intakes of energy (-191 calories), fat (-54 calories), saturated fat (-23 calories), sodium (-112 milligrams), alcohol (-26 calories), and sugars (-90 calories). Despite these potential dietary benefits of regular Nutrition Facts label use, analyzing the most recent NHANES data cycle (i.e., 2017–20) reveals that sizeable gaps exist in regular Nutrition Facts label use by sex, race and ethnicity, education, income, and geographic area in the adult population.

Men (versus women), non-Hispanic White consumers (versus Hispanic consumers of all races), less educated adults (versus those with more education), lower income households (versus those with higher incomes), and residents of nonmetropolitan areas (versus residents of large metropolitan areas) were found to be less likely to regularly consult Nutrition Facts labels when buying packaged foods. Consistent with these findings, systematic reviews of the food label use literature by Anastasiou et al. (2019) and Campos et al. (2011) found that women, people with higher educational attainment, and individuals with higher incomes were more likely to use Nutrition Facts labels. These two systematic reviews also noted that most previous studies found that non-Hispanic White consumers were more likely to use food labels than other racial and ethnic groups, though other studies have found high levels of Nutrition Facts label use among non-Hispanic black consumers (Satia et al., 2005) and Hispanic consumers (Kim et al., 2000). In this report, Hispanic consumers of all races were found to be more likely than non-Hispanic White consumers to regularly use the Nutrition Facts label. Furthermore, compared with non-Hispanic White consumers, each racial and ethnic group analyzed in this report—including non-Hispanic Black consumers, Hispanic consumers, and consumers identifying as not Hispanic and being either Asian, American Indian/Alaska Native, Native Hawaiian/Pacific Islander, or multiracial—was found to be more likely to regularly use sodium information. Campos et al. (2011) reported mixed findings regarding rural versus urban habitation affecting Nutrition Facts label use. Unlike previous studies using NHANES data without geocodes, this report was able to explore geographic heterogeneity. Use of geocodes showed that residents of nonmetropolitan areas were less likely to regularly use food label information than residents of large metropolitan areas.

The present analysis may have implications for nutrition education programs, especially those serving people living in historically underserved communities, which remains a focus for USDA (USDA, 2023). Improving Nutrition Facts label use—especially in groups with lower usage—could make it easier for consumers to choose foods that are better aligned with dietary guidelines. The nutrition information use disparities in this report may also have implications for FDA's consumer research into the development of a voluntary symbol for the healthy nutrient content claim and a front-of-package nutrition labeling system. (See box, "U.S. Food and Drug Administration's Current Nutrition Labeling Initiatives"). A symbol for a healthy food, voluntarily provided by food companies, could help consumers quickly identify foods that meet FDA's definition of healthy. This could be especially helpful for consumers with lower nutrition knowledge (FDA, 2021; FDA, 2022a; FDA, 2022b; FDA, 2024b). A front-of-package labeling system is intended to improve access to nutrition information, especially for those with lower nutrition literacy, by presenting simplified information that gives consumers additional context to help them easily make better informed and healthier food selections (White House, 2022; FDA, 2023a; FDA, 2023b).

It is unclear whether the gaps in regular Nutrition Facts label use documented in this report will also be found in regular use of other nutrition information, including the FDA's healthy nutrient content claim or the proposed front-of-package label. Future research could monitor whether similar nutrition information use disparities emerge as new or modified information is incorporated into packaged food labels.

U.S. Food and Drug Administration's Current Nutrition Labeling Initiatives

The U.S. Food and Drug Administration (FDA) is prioritizing its nutrition initiatives.[1] Two initiatives are related to updating packaged food labels and making them more accessible. The goal of these labeling initiatives is to ensure that consumers have greater access to nutrition information they can use to identify healthier food choices in the marketplace.

First, in 2022, FDA proposed to update the definition of the healthy nutrient content claim, which was initially set in 1994 (FDA, 2021; FDA, 2022a; FDA, 2022b). In December 2024, FDA finalized the updated criteria for the "healthy" claim, which are aligned with current nutrition science, the 2020–25 Dietary Guidelines for Americans, and the updated Nutrition Facts label from 2016 (FDA, 2024b). The FDA is also conducting research on a graphic "healthy symbol" that food companies could voluntarily use to help consumers identify packaged foods that meet the updated definition of healthy food. Such a symbol may be especially useful for consumers with lower nutrition knowledge to quickly identify and purchase healthier foods.

Second, in 2025 FDA proposed a standardized front-of-package label for packaged foods, which would provide simplified at-a-glance nutrition information to help consumers quickly make more informed dietary choices (White House, 2022; FDA, 2023a; FDA, 2023b; FDA, 2025). This label would aim to help consumers, including those with lower nutrition knowledge, to easily identify foods that can support a healthy diet. The front-of-package label would complement the information contained in the Nutrition Facts label, which is typically located on the back or side of packaged foods.

[1] For more information, see "FDA's Nutrition Initiatives" web page on the FDA website.

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