

Transparency in Food Labeling

Food Labels Inform Consumer Choices— and Industry Pushes Back

HIGHLIGHTS

Americans are increasingly interested in knowing what's in their food. But any time labeling proposals are put forth to help consumers make healthier choices, the food industry revives its tried-and-tested approach to sow confusion and stall progress. Food companies and trade organizations repeatedly make false claims about consumers' ability to understand nutrition labels, defending their assertions with poorly designed and misleading studies.

Studies from independent researchers and government agencies show that accurate food labeling can benefit consumers. It is time for the food industry to retire its tired claims, and accept what evidence has shown and what consumers want: clear, science-based, comprehensive nutrition labeling that will empower people to make informed decisions about the food they eat.

Since the 1990s, the Food and Drug Administration (FDA) has required food companies to include Nutrition Facts labels on product packaging. This labeling was deemed necessary by the FDA following decades of misleading and untruthful health claims on food packages that were hindering consumers from meeting nutritional recommendations developed by scientists and public health professionals (Nestle 2002). Numerous independent studies have inextricably linked poor diets to obesity and chronic disease, and the Nutrition Facts label has been a critical tool in helping consumers better navigate food decisions (IOM 2010). Nutrition labeling has also expanded to menus in restaurants around the United States to help inform consumer purchases outside of grocery stores.

The Value and Benefits of Food Labeling

Consumers are interested in making informed decisions about the food they purchase. A study using nationally representative data found that 76 percent of adults reported reading the Nutrition Facts label when purchasing packaged foods (Bleich and Wolfson 2015), and a national survey showed that information about sugar has been used consistently by more than 60 percent of consumers since the Nutrition Facts label was first introduced (Todd and Variyam 2008). Similar findings were shown at the local level as well; among 650 African American adults in



Since its passage in 1990, the Nutrition Facts label has been a critical tool in helping consumers better navigate food decisions. Over this time, the food industry has tried to undermine efforts to improve and update the label.

North Carolina, 78 percent reported reading nutrition labels. Further, women, older adults, high school-educated adults, and obese individuals are more likely to read labels than others (Satia, Galanko, and Neuhouser 2005). While labels are not used to the same degree by everyone, it might be due less to a lack of interest and more to a lack of understanding of how a product's ingredients affect health (Ollberding and Contento 2010; Rothman et al. 2006).

LABELING INFORMS HEALTHIER FOOD DECISIONS

Not only are most individuals likely to *read* nutritional information labels, but those who are aware of the relationships between diet and disease are more likely to *value* the information. Consumers with certain dietary restrictions or illnesses, such as high blood pressure or high cholesterol, are more likely to look at food labels to ensure that their dietary choices are in line with their doctor's recommendations (Kreuter et al. 1997). For example, Nutrition Facts labels have been shown to help people limit their fat intake (Satia, Galanko, and Neuhouser 2005; Neuhouser, Kristal, and Patterson 1999). Further, although not an explicit goal, labeling requirements related to a specific ingredient tend to push food companies to reformulate their products to reduce that ingredient (Masunaga 2015). Following the FDA's required labeling of trans fats in 2003, the food industry estimated that it had reduced trans fats content in foods 86 percent by 2015, and that consumption of trans fats dropped by 78 percent between 2003 and 2012 (Tavernise 2015). A nationally representative study found that after trans fats were labeled and reduced in foods, trans fat levels in non-Hispanic white adults were reduced significantly (Vesper et al. 2012).

LABELING GUIDES HEALTHIER DINING CHOICES

While there are mixed findings on whether menu labeling influences consumer purchasing decisions, several studies show it can encourage lower-calorie purchases at full-service chain restaurants, coffee shops, and in cafeteria settings (Finkelstein et al. 2011; Elbel et al. 2009; Bassett et al. 2008; Roberto, Khandpur, and VanEpps n.d.). For example, consumers who read restaurant menus with calorie-content information ordered foods with significantly lower calories than those who ordered foods from the same menu without that information (Roberto et al. 2010; Bassett et al. 2008). Research on fast food menu labels shows that regardless of whether consumers are attempting to lose weight or not, they report using nutrition information to make purchasing decisions (Bleich and Wolfson 2015). And researchers looking at county-level data in locations that had adopted calorie labeling in restaurants found that there was a statistically significant decrease



© Int'l St. Clair/Blend

Nutrition labeling has expanded to menus in certain restaurants and other food service establishments around the United States, and several studies show that it can encourage lower-calorie purchases.

in body mass index for overweight women, and for healthy weight, overweight, and obese men; the higher the weight, the more significant the results, likely because these individuals are more information-sensitive (Deb and Vargas 2016; Restrepo 2016).

The Food Industry's Opposition to Labeling

Despite the value of, and consumers' demand for, clear nutrition labeling, the food industry has a long history of opposing labeling efforts (Kyle and Thomas 2014; Nestle 2002). When the FDA first issued its rule mandating nutrition labeling in 1990, food companies and trade associations opposed the rules because of a fear that some foods would appear less healthy than others and that the FDA's rule was acting to "protect consumers against themselves" (Nestle 2002). Frito-Lay, a snack food subsidiary of PepsiCo, asserted, "it is certain that should all of the information that the FDA is currently proposing be included on a label, it would overwhelm and easily exceed the capacity of the average consumer to understand it" (Frito-Lay, Inc. 1990).

More than 25 years later, the Nutrition Facts label is on virtually all US food packaging, but the food industry has still tried to undermine the FDA's efforts to improve and update the label. Most recently, the FDA proposed a rule in 2014 that,

among other changes, would require food companies to add a line listing the amount of “added sugars” and the percent daily value (%DV)¹ that amount represents on the Nutrition Facts label (FDA 2015a). The FDA’s proposal reflected scientific evidence that links excessive sugar consumption to tooth decay, type 2 diabetes, and cardiovascular diseases (HHS and USDA 2015). Our analysis of the public comments submitted in response to the “added sugars” line showed that the food industry provided the majority of comments opposing it, while the public health and academic communities provided comments overwhelmingly supporting it (UCS 2015). Despite industry pressure, the FDA finalized the “added sugars” line in 2016 (Federal Register 2016), marking a major win for the public’s right to know what goes in their foods.

One of the most commonly used industry arguments to oppose labeling efforts has been that it would mislead or confuse consumers. However, the food industry has little independent scientific information to support this claim and instead uses several different tactics to create doubt surrounding the utility of food labels.



Creative Commons/D.H. Parks (flickr)

Consumers have a right to science-based nutritional information about the foods they eat and feed their children. Clear, comprehensive nutrition labeling helps and empowers consumers to better navigate food decisions.

Despite the value of, and consumers’ demand for, clear nutrition labeling, the food industry has a long history of opposing labeling efforts.

SOWING DOUBT TO YIELD A DESIRED MESSAGE

In a 2014 survey of 500 US adults, 63 percent of respondents thought that the FDA’s proposed “added sugars” line would be helpful, while just 18 percent thought that the label would be confusing (Kyle and Thomas 2014). And in 2015, the FDA released a study in which 160 participants compared Nutrition Facts labels both with and without an “added sugars” line; when participants were asked to identify the amount of added sugars, the proposed label made it easier for participants to do so (FDA 2015b). Despite these findings, the Food Marketing Institute, a food retailer trade organization, tried to inject uncertainty by questioning “whether consumers will correctly interpret the proposed added sugars declaration in the context of an overall, balanced diet” (FMI 2015).

CONDUCTING IN-HOUSE STUDIES WITH FLAWED PARAMETERS

The International Food Information Council (IFIC), a group financed by some of the largest multinational food companies and with a board comprised predominantly of food industry representatives, released a study on how consumers will perceive an “added sugars” line (Laquatra et al. 2015; IFIC n.d.). Despite its own findings that the majority of consumers (81.4 percent) who read nutrition labels also rely on the ingredients list, the IFIC study design only allowed respondents to look at the current Nutrition Facts label, and not an accompanying ingredients list. Nor did the study evaluate how the “added sugars” line would affect actual food purchasing (Laquatra et al. 2015). Despite conducting a study with incomplete information, the IFIC concluded that its “data support the misleading nature of including an ‘Added Sugars’ line on the [Nutrition Facts Label] by potentially altering the way consumers judge the healthfulness of a product, thus affecting the likelihood of purchasing said product” (IFIC 2015).

¹ This value represents the extent to which a nutrient in a particular food contributes to one’s total daily recommended allowance of that nutrient, based on a 2,000-calorie diet.

Labeling plays a pivotal role in a multifaceted approach to encouraging healthier food choices by enabling consumers to make informed decisions.

Similarly, a General Mills study that asked respondents to report how much total sugar was in a product did not ask about “added sugar” (General Mills, Inc. 2015). Despite having no clear input from respondents on added sugar, General Mills stated that “an added sugars declaration creates confusion and decreases understanding of total sugar content . . .” (General Mills, Inc. 2015).

SHIFTING FOCUS TO CONSUMER CHOICE

Some companies simply divert attention from the scientific evidence with unsupported claims about labels, leading to consumer confusion. For example, based on the government’s 2015 *Dietary Guidelines for Americans* that recommends individuals two years and older to consume less than 10 percent of calories per day from added sugars, the FDA proposed to include a %DV for added sugars on the Nutrition Facts label (HHS and USDA 2015; FDA 2014). Nevertheless, Campbell Soup Company argued that an “added sugars” line “could confuse consumers by taking their focus off of calories and causing them to mistake one food as being a better food choice when in reality it is equivalent” (Campbell Soup Company 2014). Similarly, Kraft Foods Group asserted that the “added sugars” line “will distract consumers from the overall focus on total calorie intake from all macronutrient sources and not aid them in maintaining healthy dietary patterns” (Kraft Food Group, Inc. 2014).

Consumers Want More Information, Not Less

While labeling on its own will not solve the nation’s obesity crisis nor rid the nation of other diet-related chronic diseases, it plays a pivotal role in a multifaceted approach to encouraging healthier food choices by enabling consumers to make informed decisions. Consumers have a right to science-based nutritional information about the foods they eat and feed their children, and our federal agencies have the responsibility to require food labels to reflect current scientific evidence and safeguard public health, whether or not the food industry objects. Instead

of opposing labeling, the food industry should support consumers’ right to know and, ideally, reformulate its products to give consumers truly healthier food choices.

Genna Reed is a science and policy analyst in the Center for the Science and Democracy at the Union of Concerned Scientists. Pallavi Phartiyal is a senior analyst and program manager in the Center for Science and Democracy.

ACKNOWLEDGMENTS

The authors would like to thank Lindsey Haynes-Maslow (North Carolina State University), Jennifer Pomeranz (New York University), and Christina Roberto (University of Pennsylvania) for their time and helpful input.

The opinions expressed herein do not necessarily reflect those of the organizations that funded the work or the individuals who reviewed it. The Union of Concerned Scientists bears sole responsibility for the report’s content.

REFERENCES

- Bassett, M.T., T. Dumanovsky, C. Huang, L.D. Silver, C. Young, C. Nonas, T.D. Matte, S. Chideya, and T.R. Frieden. 2008. Purchasing behavior and calorie information at fast-food chains in New York City, 2007. *American Journal of Public Health* 98:1457–1459. doi:10.2105/AJPH.2008.135020.
- Bleich, S.N., and J.A. Wolfson. 2015. Differences in consumer use of food labels by weight loss strategies and demographic characteristics. *BMC Public Health* 15:1275. doi:10.1186/s12889-015-2651-z.
- Campbell Soup Company. 2014. Comments on Food Labeling: Revision of the Nutrition and Supplement Facts Labels. Docket No. FDA-2012-N-1210. Comment ID No. FDA-2012-N-1210-0322. July 31. Washington, DC: US Food and Drug Administration.
- Deb, P., and C. Vargas. 2016. Who benefits from calorie labeling? An analysis of its effects on body mass. Working paper. Cambridge, MA: National Bureau of Economic Research.
- Elbel, B., R. Kersh, V.L. Brescoll, and L.B. Dixon. 2009. Calorie labeling and food choices: A first look at the effects on low-income people in New York City. *Health Affairs* 28(6):1110–1121. doi:10.1377/hlthaff.28.6.w1110.
- Federal Register. 2016. Food Labeling: Revising of the Nutrition and Supplement Facts Labels: Final Rule. Washington, DC: National Archives and Records Administration. Vol. 81, No. 103. May 27. Online at <https://federalregister.gov/a/2016-11867>, accessed May 27, 2016.
- Finkelstein, E.A., K.L. Strombotne, N.L. Chan, and J. Krieger. 2011. Mandatory menu labeling in one fast-food chain in King County, Washington. *American Journal of Preventive Medicine* 40(2):122–127. doi:10.1016/j.amepre.2010.10.019.
- Food Marketing Institute (FMI). 2015. Comments on Food Labeling: Revision of the Nutrition and Supplement Facts Labels. Docket No. FDA-2012-N-1210. Comment ID No. FDA-2012-N-1210-0802. October 13. Washington, DC: US Food and Drug Administration.
- Frito-Lay, Inc. 1990. Comments on Food Labeling: Reference Daily Intakes and Daily Reference Values; Mandatory Status of Nutrition Labeling and Nutrient Content Revisions; Serving Sizes. Docket Nos. 90N-0134, 90N-0135, and 90N-0165. Comment ID No. FDA-1990-N-0172-0075. July 13. Washington, DC: US Food and Drug Administration.

- General Mills, Inc. 2015. Comments on Food Labeling: Revision of the Nutrition and Supplement Facts Labels. Docket No. FDA-2012-N-1210. Comment ID No. FDA-2012-N-1210-0795. October 13. Washington, DC: US Food and Drug Administration.
- Institute of Medicine of the National Academies (IOM). 2010. *Front-of-package nutrition rating systems and symbols: Phase 1 report*. Washington, DC: National Academy of Sciences.
- International Food Information Council (IFIC). 2015. Comments to Food Labeling: Revision of the Nutrition and Supplement Facts Labels. Docket No. FDA-2012-N-1210. Comment ID No. FDA-2012-N-1210-0692. October 13. Washington, DC: US Food and Drug Administration.
- International Food and Information Council (IFIC). No date. About. Online at www.foodinsight.org/about, accessed March 21, 2016.
- Kraft Food Group, Inc. 2014. Comments to RE: Docket No. FDA-20120N-120, Food Labeling: Revision of the Nutrition and Supplement Facts Labels, 79 Federal Register 11880, March 3, 2014. Docket No. FDA-2012-N-1210. Comment ID No. FDA-2012-N-1210-0406. August 1. Washington, D.C.: US Food and Drug Administration.
- Kreuter, M.W., L.K. Brennan, D.P. Scharff, and S.N. Lukwago. 1997. Do nutrition label readers eat healthier diets? Behavioral correlates of adults' use of food labels. *American Journal of Preventive Medicine* 13(4):277–283.
- Kyle, T.K., and D.M. Thomas. 2014. Consumers believe nutrition facts labeling for added sugar will be more helpful than confusing. *Obesity* 22(12):2481–2484. doi:10.1002/oby.20887.
- Laquatra, I., K. Sollid, M.S., Edge, J. Pelzel, and J. Turner. 2015. Including “added sugars” on the nutrition facts panel: How consumers perceive the proposed change. *Journal of the Academy of Nutrition and Dietetics* 115(11):1758–1763. doi:http://dx.doi.org/10.1016/j.jand.2015.04.017.
- Masunaga, S. 2015. Trans fats already out of most food products, companies say. *Los Angeles Times*, June 16.
- Nestle, M. 2002. *Food politics: How the food industry influences nutrition and health*. Berkeley and Los Angeles, CA: University of California Press.
- Neuhouser, M.L., A.R. Kristal, and R.E. Patterson. 1999. Use of food nutrition labels is associated with lower fat intake. *Journal of the American Dietetic Association* 99(1):45–53. doi:http://dx.doi.org/10.1016/S0002-8223(99)00013-9.
- Ollberding, N.J., and I. Contento. 2010. Food label use and its relation to dietary intake among US adults. *Journal of the American Dietetic Association* 110(8):1233–1237. doi:10.1016/j.jada.2010.05.007.
- Restrepo, B.J. 2016. Calorie labeling in chain restaurants and body weight: Evidence from New York. *Health Economics*. Under review.
- Roberto, C.A., P.D. Larsen, H. Agnew, J. Balk, and K.D. Brownell. 2010. Evaluating the impact of menu labeling on food choices and intake. *American Journal of Public Health* 100(2):312–318. doi:10.2105/AJPH.2009.160226.
- Roberto, C.A., N. Khandpur, and E.M. VanEpps. No date. Food labeling and obesity. In *Eating Disorders and Obesity: A Comprehensive Handbook, 3rd Edition*, edited by K. Bronwell and B.T. Walsh. New York, NY: Guilford Press. In press.
- Rothman, R.L., R. Housam, H. Weiss, D. Davis, R. Gregory, T. Gebretsadik, A. Shintani, and T.A. Elasy. 2006. Patient understanding of food labels: the role of literacy and numeracy. *American Journal of Preventive Medicine* 31(5):391–398. doi:http://dx.doi.org/10.1016/j.amepre.2006.07.025.
- Satia, J.A., J.A. Galanko, and M.L. Neuhouser. 2005. Food nutrition label use is associated with demographic, behavioral, and psychosocial factors and dietary intake among African Americans in North Carolina. *Journal of the American Dietetic Association* 105(3):392–402. doi:http://dx.doi.org/10.1016/j.jada.2004.12.006.
- Tavernise, S. 2015. F.D.A. sets 2018 deadline to rid foods of trans fats. *New York Times*, June 16.
- Todd, J.E., and J.N. Variyam. 2008. *The decline in consumer use of food nutrition labels 1995-2006*. Economic Research Report Number 63. Washington, DC: US Department of Agriculture, Economic Research Service.
- Union of Concerned Scientists (UCS). 2015. *Added sugar on the nutrition facts label: Public comments to the FDA show big food is sour on science*. Cambridge, MA. Online at www.ucsusa.org/sites/default/files/attach/2015/05/ucs-fda-sugar-fs-2015.pdf, accessed April 20, 2016.
- US Food and Drug Administration (FDA). 2015a. Food labeling: Revision of the nutrition and supplement facts labels; Supplemental proposed rule to solicit comment on limited additional provisions. Docket No. FDA-2012-N-1210. 21 C.F.R. 101 (July 27, 2015). Washington, DC.
- US Food and Drug Administration (FDA). 2015b. Eye-tracking experimental study on consumer responses to modifications to the Nutrition Facts label outlined in the Food and Drug Administration's proposed rulemaking (OMB No. 0910-0774). Memorandum, June 30. Washington, DC.
- US Department of Health and Human Services (HHS) and US Department of Agriculture (USDA). 2015. 2015–2020 *Dietary Guidelines for Americans, Eighth Edition*.
- Vesper, H.W., H.C. Kuiper, L.B. Mirel, C.L. Johnson, and J.L. Pirkle. 2012. Levels of plasma *trans*-fatty acids in non-Hispanic white adults in the United States in 2000 and 2009. *Journal of the American Medical Association* 307(6):562–563.

Union of Concerned Scientists

FIND THIS DOCUMENT ONLINE: www.ucsusa.org/foodlabeling

The Union of Concerned Scientists puts rigorous, independent science to work to solve our planet's most pressing problems. Joining with citizens across the country, we combine technical analysis and effective advocacy to create innovative, practical solutions for a healthy, safe, and sustainable future.

NATIONAL HEADQUARTERS

Two Brattle Square
Cambridge, MA 02138-3780
Phone: (617) 547-5552
Fax: (617) 864-9405

WASHINGTON, DC, OFFICE

1825 K St. NW, Suite 800
Washington, DC 20006-1232
Phone: (202) 223-6133
Fax: (202) 223-6162

WEST COAST OFFICE

500 12th St., Suite 340
Oakland, CA 94607-4087
Phone: (510) 843-1872
Fax: (510) 843-3785

MIDWEST OFFICE

One N. LaSalle St., Suite 1904
Chicago, IL 60602-4064
Phone: (312) 578-1750
Fax: (312) 578-1751