



ELSEVIER

Contents lists available at ScienceDirect

Appetite

journal homepage: www.elsevier.com/locate/appet

Research report

Front-of-pack symbols are not a reliable indicator of products with healthier nutrient profiles [☆]

Teri E. Emrich ^{a,*}, Ying Qi ^b, Joanna E. Cohen ^c, Wendy Y. Lou ^b, Mary L. L'Abbe ^a^a Department of Nutritional Sciences, University of Toronto, FitzGerald Building, 150 College Street, Toronto, ON M5S 3E2, Canada^b Dalla Lana School of Public Health, University of Toronto, 155 College Street, Toronto, ON M5T 3M7, Canada^c Department of Health, Behavior and Society, Johns Hopkins Bloomberg School of Public Health, 2213 McElderry Street, Baltimore, MD 21205, USA

ARTICLE INFO

Article history:

Received 30 January 2014

Received in revised form 1 August 2014

Accepted 21 September 2014

Available online 30 September 2014

Keywords:

Food labelling

Food quality

Food analysis

Food marketing

ABSTRACT

Background: Front-of-pack (FOP) nutrition rating systems and symbols are a form of nutrition marketing used on food labels worldwide. In the absence of standardized criteria for their use, it is unclear if FOP symbols are being used to promote products more nutritious than products without symbols. **Objectives:** To compare the amount of calories, saturated fat, sodium, and sugar in products with FOP symbols, and different FOP symbol types, to products without symbols. **Methods:** The median calorie, saturated fat, sodium, and sugar content per reference amount of products with FOP symbols were compared to products without FOP symbols using data from the Food Label Information Program, a database of 10,487 Canadian packaged food labels. Ten food categories and 60 subcategories were analyzed. Nutrient content differences were compared using Wilcoxon rank-sum test; differences greater than 25% were deemed nutritionally relevant. **Results:** Products with FOP symbols were not uniformly lower in calories, saturated fat, sodium, and sugar per reference amount than products without these symbols in any food category and the majority of subcategories (59/60). None of the different FOP types examined were used to market products with overall better nutritional profiles than products without this type of marketing. **Conclusion:** FOP symbols are being used to market foods that are no more nutritious than foods without this type of marketing. Because FOP symbols may influence consumer perceptions of products and their purchases, it may be a useful public health strategy to set minimum nutritional standards for products using FOP symbol marketing.

© 2014 Elsevier Ltd. All rights reserved.

Introduction

Worldwide, chronic diseases account for 60% of deaths, and unhealthy diet is a preventable risk factor shared by most chronic diseases (World Health Organization, 2003, 2005). To reduce chronic disease risk, the World Health Organization recommends that individuals and populations limit their intake of saturated and *trans* fat, cholesterol, and simple and added sugars, while achieving energy balance (World Health Organization, 2003, 2004). To help consumers choose foods consistent with these recommendations, the World Health Organization supports the provision of

“accurate, standardized and comprehensible information on the content of food items” on food packages (World Health Organization, 2004). Indeed, in many countries around the world, standardized, voluntary or mandatory nutrition labels are found on the back-of-pack of some, or all, pre-packaged foods (European Food Information Council, 2013). For example, Canada has required the use of a mandatory Nutrition Facts table (NFT) on most pre-packaged foods since 2007 (Government of Canada, 2003). Furthermore, voluntary claims that describe the level of a nutrient in a food or the relationship between a food and health are also permitted on products meeting prescribed conditions in many countries (Hawkes, 2004). For example, Canada’s Food and Drug Regulations allow for the voluntary use of nutrient-content claims such as “low in fat” and health claims such as “a healthy diet with adequate calcium and vitamin D, and regular physical activity, help to achieve strong bones and may reduce the risk of osteoporosis” on food labels. Besides nutrition labels and claims, a variety of front-of-pack (FOP) nutrition rating systems and symbols have been providing simplified nutrition information to consumers on the front of food packages since the 1980s (Committee on the Examination of Front-of-Package Nutrition Rating Systems and Symbols, Institute of Medicine, 2010; European Food Information Council, 2013). Standardized, voluntary FOP systems

[☆] **Acknowledgements:** Funding for this research came from an open operating grant from the Canadian Institutes of Health Research/Canadian Stroke Network (SOK 118150) with additional funding from the Earle W. McHenry Endowed Research Chair Funds from the University of Toronto. Teri Emrich is supported by a CIHR Frederick Banting and Charles Best Canada Graduate Scholarship, a Cancer Care Ontario and CIHR Training Grant in Population Intervention for Chronic Disease Prevention: A Pan-Canadian Program (Grant #53893), and the CIHR Strategic Training Program in Public Health Policy. *Conflict of interest:* There are no conflicts of interest to declare.

* Corresponding author.

E-mail address: teri.emrich@mail.utoronto.ca (T.E. Emrich).

have been introduced in some countries (Department of Health, Food Standards Agency, Welsh Government, & The Scottish Government, 2013; Plibersek & Neumann, 2013); however, multiple FOP systems with their own unique symbols and underlying criteria can currently be found in most marketplaces (Committee on the Examination of Front-of-Package Nutrition Rating Systems and Symbols, Institute of Medicine, 2010; Hawkes, 2009; Silverglade & Ringel Heller, 2010). Within Canada, there are presently no specific regulations governing the use of FOP symbols, beyond that they may not be “false, misleading, or deceptive” (Government of Canada, 2010). Voluntary claims and FOP systems provide nutrition information beyond what is required on the nutrition label in most jurisdictions and can therefore be defined as forms of nutrition marketing (Colby, Johnson, & Hoverson, 2010).

The US Institute of Medicine has categorized FOP systems into three general types: nutrient-specific systems, summary indicator systems, and food group information systems (Committee on the Examination of Front-of-Package Nutrition Rating Systems and Symbols, Institute of Medicine, 2010). According to the Institute of Medicine, nutrient-specific systems typically either display the amount of calories and select nutrients per serving (i.e. repeat some of the information required by nutrition labels on the FOP) or use symbols based on claim criteria (i.e. ‘low in fat’ or ‘high in fibre’). Summary indicator systems provide summary information on the nutrient content of a food product using a single symbol, icon, or score and are based on nutrient thresholds or algorithms. Finally, food group information systems use symbols to convey the presence of a food group or ingredient (see Fig. 1 for examples of each type of FOP system).

Nutrition marketing has the potential to influence consumer purchases at the grocery store, which may impact consumption patterns and ultimately chronic disease risk. Consumers perceive products with summary indicator systems (such as the Heart and Stroke Foundations’ Health Check™ symbol shown in Fig. 1) as more healthful and lower in ‘negative’ nutrients (Andrews, Burton, & Kees, 2011; Reid et al., 2004; Steenhuis et al., 2010). Moreover, it has been found that FOP claims (such as the nutrient-content and health claims that form the basis of some nutrient-specific systems such as the General Mills’ Goodness Corner found in Fig. 1) exert a ‘halo’ effect whereby consumers tend to generalize the claim to the entire product, believing that the product is healthier with respect to nutritional and health elements not identified in the claim (Andrews, Netemeyer, & Burton, 1998; Roe, Levy, & Derby, 1999; Wong et al., 2013). While we are not aware of any study examining consumers’ perceptions

of products with food group information systems, it is possible that this “halo” effect may extend to such systems given their similarities with nutrient-specific systems based on claims criteria. While there is little research available examining the impact of the different FOP systems on food purchases and consumption (Hawley et al., 2012), 23% of consumers report looking for better choice slogans, symbols or logos [FOP systems] on food labels (Canadian Council of Food and Nutrition, 2008), and qualitative research has found that many consumers use FOP nutrition information more often than back-of-pack nutrition labels (Canadian Council of Food and Nutrition, 2010).

Despite evidence that consumers perceive products with FOP systems as healthier or having more favourable nutrient contents, it is presently not known if FOP systems are being used to market products with overall better nutrient compositions. Most countries allow products to carry claims (like those that form the basis of some nutrient-specific systems) without considering their overall nutrient composition (Hawkes, 2004). Furthermore, while summary indicator systems typically consider multiple nutrients in their criteria, the nutrients included and their thresholds or algorithms vary from one system to the next (Committee on the Examination of Front-of-Package Nutrition Rating Systems and Symbols, Institute of Medicine, 2010; Hawkes, 2009), and food group information systems typically only consider a single food group or ingredient and not overall nutrient content (Committee on the Examination of Front-of-Package Nutrition Rating Systems and Symbols, Institute of Medicine, 2010). Considering the weaknesses in the present voluntary FOP systems, the Institute of Medicine has suggested that to best promote health, FOP systems need to consider calories and multiple nutrients, namely saturated fat, *trans* fat, sodium, and added sugar as these nutrients are of greatest relevance to public health and chronic disease risk (Committee on Examination of Front-of-Package Nutrition Ratings Systems and Symbols (Phase II), Institute of Medicine, 2011). However, since FOP systems currently only consider selected nutrients and food components, they may be being used to market products that are no healthier in their content of the nutrients proposed by the Institute of Medicine than products without such marketing.

In the absence of standardized underlying nutrient criteria, we hypothesize that products marketed with FOP symbols will provide similar levels of calories, saturated fat, *trans* fat, sodium, and sugar to products without symbols. This study aimed to evaluate if FOP symbols are being used on foods lower in calories, saturated fat, *trans* fat, sodium, and sugar than foods without symbols. This study also



Fig. 1. Examples of different front-of-pack symbol types.

Download English Version:

<https://daneshyari.com/en/article/7309663>

Download Persian Version:

<https://daneshyari.com/article/7309663>

[Daneshyari.com](https://daneshyari.com)