The healthfulness of packaged foods with and without nutrition claims in Canada

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Introduction

Nutrition labelling is a key part of food environments, as they provide information to consumers that can influence food choices. Nutrition claims are voluntary statements on food labels about products' nutrient content or beneficial effects of product ingredients (1) which are often used for marketing purposes and may not indicate overall product healthfulness (2). A front-of-pack (FOP) symbol will be mandatory in Canada in 2026 for packaged food products that are considered 'high' in saturated fats, sugars and/or sodium **(Figure 1)** (3). The interaction between the presence of nutrition claims that describe 'healthful' features of foods, and the presence of FOP symbols indicating poor nutritional quality may cause consumer confusion. This project is part of the Canadian food labelling module of the International Network for Food and Obesity/NCDs Research, Monitoring and Action Support (INFORMAS).

Aims: This study aimed to characterize the use and prevalence of nutrition claims and the presence of FOP symbols in a sample of Canadian packaged foods, and to examine the association between nutrition claims and the potential presence of the FOP symbol in the Canadian food supply.

Figure 1. Health Canada's front-of-pack (FOP) symbol

Methods

Five food categories were evaluated using data the Food Quality Observatory (4) database (n=2942). Data were collected between 2018 and 2022 in grocery stores in Québec City, Canada.

INFORMAS Canada priority food categories selected:

- **Milks** (dairy and plant-based) (n=203)
- **Yogurts** (dairy and plant-based) (n=297)
- **Breakfast cereals** (n=392)
- **Salty snacks** and **Crackers** (n=1065)
- **Cookies** and **Granola bars** (n=983)

Nutrition claims on packages were classified using the INFORMAS taxonomy (5). **Six types** of nutrition claims were assessed:

- Nutrient content claim
- Nutrient comparative claim
- Health-related ingredient claim
- General health claim
- Nutrient function claim
- Disease reduction claim

The nutritional profile of foods was evaluated using Health Canada's FOP symbol nutrient thresholds, indicating food products high in saturated fats, sugars and/or sodium (3). A symbol is typically required when a nutrient is ≥ 15% of the percentage daily value (%DV) for most items, ≥ 10% for foods with a smaller portion size (<30g or ml) and ≥ 30% for foods considered 'meals.' Some exemptions apply, for example dairy foods that are high in calcium.

- **Descriptive analyses** evaluated the frequency of various types of nutrition claims and proportion of food products that would carry a FOP symbol.
- **Poisson likelihood regression** evaluated the difference in the number of nutrition claims present between food categories.
- **Logistic regression** evaluated which food categories were more likely to display a nutrition claim, and if foods with nutrition claim were likely to display a FOP symbol, adjusting for food categories.

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Results

Overall, 74.2% of food products (n=2183/2942) had at least one nutrition claim. The most frequent types of nutrition claims were **nutrient content claims** (61.0%) (e.g., high in fiber, 0 trans fat, unsweetened) followed by **health-related ingredient claims** (44.8%) (e.g., made with 100% whole grains, plant-based).

Figure 2 shows the frequency of nutrition claims by category. *Milks* were **more likely** to have a nutrition claim present than *Breakfast cereals*, *Salty snacks* and *Cookies and Granola bars*.

Yogurts were **more likely** to have a nutrition claim present than *Salty snacks* and *Cookies and Granola bars*, as were *Breakfast cereals*.

Salty snacks were **more likely** to have a nutrition claim present than *Cookies and Granola bars*.

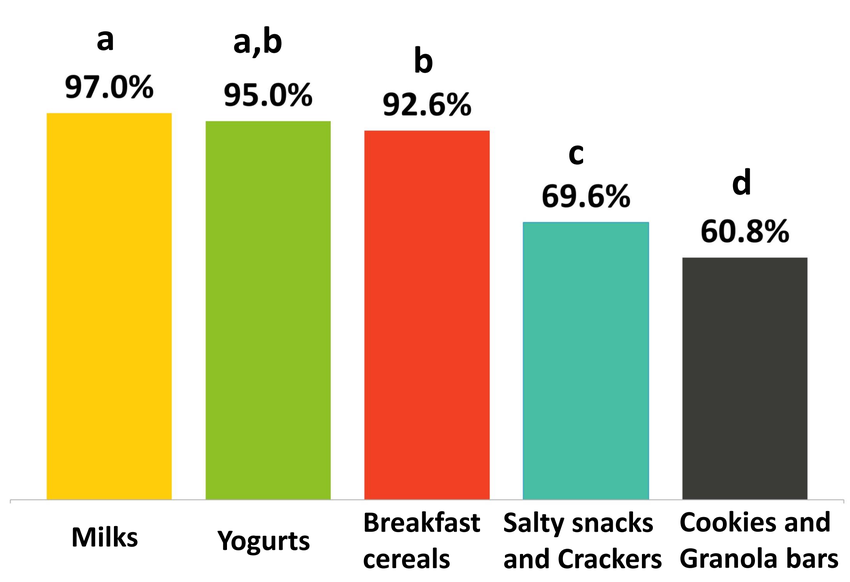

Figure 2. Frequency of nutrition claims by food category

Legend: Different letters represent significant differences between categories (p<0.05). Same letters represent no significant differences.

Overall, the **mean number of nutrition claims was 1.98.** There were significant differences in the number of nutrition claims between all categories except between *Breakfast cereals* and *Milks* (**Figure 3**, p<0.05 for all).

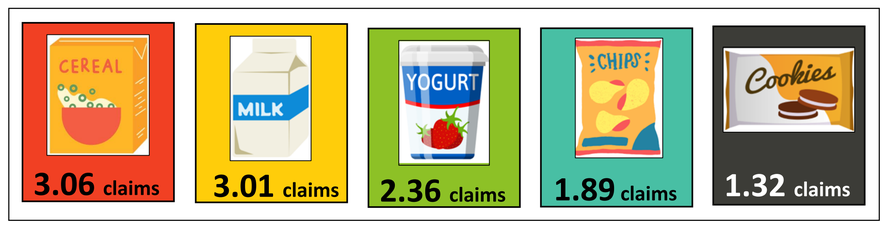

Figure 3. Mean number of nutrition claims by food category

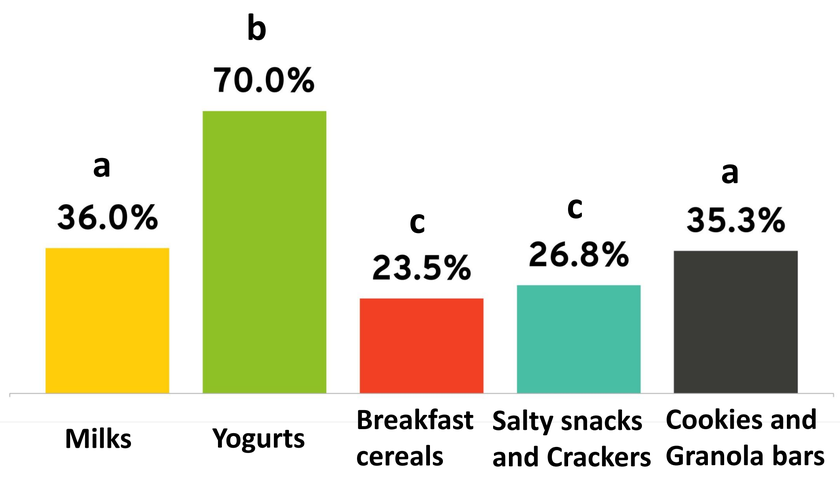

Figure 4. Proportion of food products with a nutrition claim that are also high in sodium, sugar or saturated fat, by food category

Legend: Different letters represent significant differences between categories (p<0.05). Same letters represent no significant differences.

Of products carrying nutrition claims (n=2183), **45.1%** (n=984) would also display a FOP symbol.

Overall, food products with nutrition claims **were less likely** to display a **FOP symbol** (i.e., less likely to be 'high' in sodium, sugar and/or saturated fats) than foods without nutrition claims; (OR=0.30, 95% CI 0.25-0.36).

The frequency of foods with nutrition claims that were high in nutrients of concern varied by category (**Figure 4**). *Yogurts* were **more likely** to have a nutrition claim and require a FOP symbol than all food categories. *Cookies and Granola bars* and *Milks* were **more likely** to have a claim and require an FOP symbol than *Salty snacks* and *Breakfast cereals.*

Policy implications

- **Almost half of products with a nutrition claim would display a FOP symbol**. This means a third of Canadian food products will have conflicting labelling displaying nutrition claims and a FOP symbol, which is likely to cause consumer confusion.
- Current regulations in Canada do not restrict the use of nutrition claims on foods when FOP symbols are present. The results highlight **an opportunity to improve Canadian labelling regulations** for food products having a FOP symbol by restricting the use of nutrition claims.
- The results can be used in future research to assess **how industry use of nutrition claims** may change when the Canadian FOP regulations come into effect.

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