

Trans Fat Reduction Initiative

Background

The high level of trans fats in Canadian diets is a significant risk factor for heart disease and stroke. Studies estimate that 6%-22% of coronary heart disease events can be prevented by replacing trans fats with healthier alternatives. While naturally occurring trans fats are present in small amounts (2-5% of total fat) in dairy and beef products, industrially produced trans fats are formed by the additional of hydrogen to unsaturated oils (usual vegetable) to harden and stabilize liquid vegetable oils and may be as high as 45% of total fat in the food item. This process allows for longer shelf life for foods using these partially hydrogenated fats.

Due to the health risks associated with trans fats, on November 20th, 2007 the Calgary Health Region Board of Directors approved a motion to adopt an initiative to reduce trans fats. The initiative had two phases:

Phase 1: (Requirements Effective January 1, 2008)

- Hydrogenated margarines, oils or shortenings used for deep-frying, frying, sautéing, or grilling shall have a trans fat content of not more than 2% of total fat content.
- Hydrogenated margarines, oils or shortenings used as a spread on sandwiches, vegetables, potatoes, rice, etc. shall have a trans fat content not more than 2% of total fat content.

Phase 2: (Requirements Effective July 1, 2009)

- Any food item for use, service, sale or storage that contains hydrogenated margarines, oils or shortenings shall have a trans fat content that is not more than 2% total fat content.

Health inspectors, as part of their regular inspections, began monitoring compliance with the Phase 1 requirements in January 2008 and began issuing infractions to violators in June 2008.

Evaluation Objectives and Questions

This document provides an interim update on the implementation of the Trans Fat Reduction Initiative which, to date, has included only the implementation of Phase 1.

The evaluation questions included:

- Did the use of hydrogenated margarines, oils, and shortenings with a trans fat content of not more than 2% change since the implementation of the Initiative?
- What was the compliance rate among food permit holders since implementation?
- What were barriers and successes in implementing Phase 1 of the Initiative?
- What additional resources would have been helpful in the implementation of Phase 1?

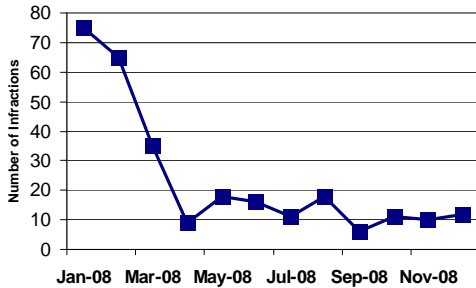
Evaluation Methods and Analysis

- Compliance and infraction data was gathered and retrieved by health inspectors from their database. Frequencies and counts were used to describe these data.
- A cross-sectional survey was distributed to a sample of food permit holders by health inspectors prior to (October 2007) and following the implementation of Phase 1 (November 2008). Frequencies and counts were used to describe these data. Z-tests of 2 proportions were used to determine if changes over time were statistically significant.
- Open-ended survey questions were asked of health inspectors. Content analysis was used for this qualitative data, as well as qualitative comments from the survey of food permit holders.

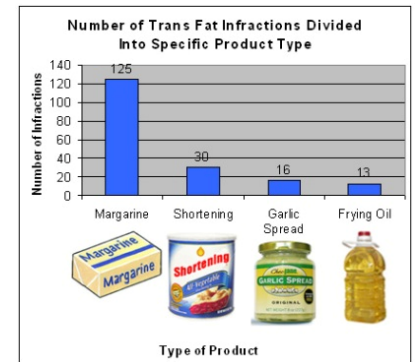
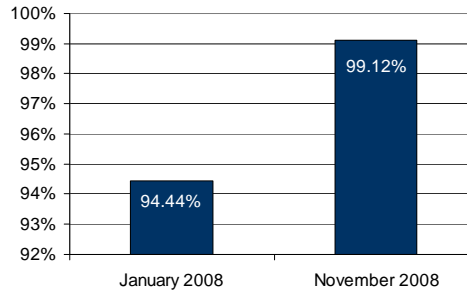
Results

There are approximately 6432 food permit holders affected by Phase 1 of the Initiative. From January to December 2008, approximately 286 trans fat infractions were handed out to 186 food permit holders. However, the frequency of violations has declined over time. In November, 99.1% of food permit holders were compliant with the trans fat requirements, an increase from 94.4% in January. Data from January to August indicates that margarine was the product most likely to be the cause of violations.

Number of Trans-Fat Infractions by Month



Percentage of Trans-Fat Compliant Permit Holders

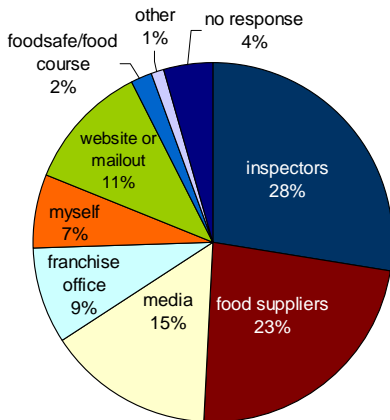


In October 2007, 404 food permit holders were surveyed (6.3% of those eligible) regarding their use of margarine, oil, and shortening containing trans fat. The survey was conducted again in November 2008 with 418 food permit holders (6.5% of those eligible).

Data from restaurant operators indicates statistically significant reductions in the number of deep-frying, cooking, and spread products with greater than 2% trans fat were found in the follow-up survey compared to the preliminary survey.

Type of Product	Pre- Initiative % of products > 2% trans-fat	Post-Initiative % of products > 2% trans-fat
Deep Frying	10.1%	1.5%
Cooking/Grilling	7.9%	1.7%
Spreads	38.4%	12.5%

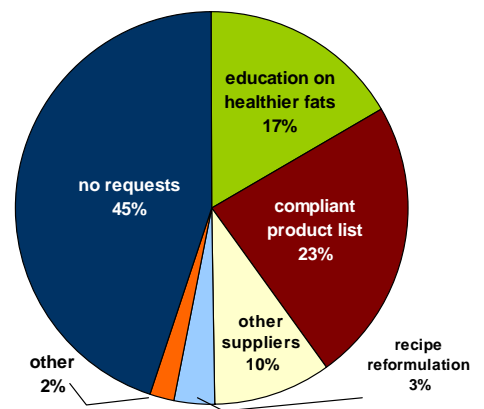
Most Frequently Used Sources of Trans Fat Information



Of those surveyed, 73.9% had no problem making a change to meet the new requirements or were already using a low trans fat product. Cost was named as a barrier by 11.5% of respondents. A lack of understanding of trans fats (3.8%), unavailable alternatives (2.8%), taste complaints from customers (2.2%), and recipe reformulation (1.4%) were also named.

Respondents were also asked about the most frequently used sources of information and additional resources.

Additional Resources Requested by Food Permit Holders



Conclusions and Recommendations

- Phase 1 has been successful. The use of trans fats has been significantly reduced in Calgary restaurants during the last year. A survey of products used in a comparable city is required to identify if these changes are due to our policy or due to a regional or national trend to reduce trans fats.
- Consider developing additional resources for food permit holders to support the implementation of Phase 2.
- Continue to support Health Inspectors as they are the primary source of information for food permit holders.
- Continue to evaluate the Initiative as it moves into the implementation of Phase 2.
- Consider monitoring long-term health outcomes, such as mortality and morbidity rates from heart disease as part of the larger evaluation.
- Consider identifying ways to disseminate these results regionally, nationally, and internationally.