

VU Research Portal

Evaluation of a front-of-pack nutrition label

Vyth, E.L.

2012

document version

Publisher's PDF, also known as Version of record

[Link to publication in VU Research Portal](#)

citation for published version (APA)

Vyth, E. L. (2012). *Evaluation of a front-of-pack nutrition label: Effects on consumer behavior, product development and public health*. [, Vrije Universiteit Amsterdam]. GVO drukker & vormgevers B.V./Ponsen & Looijen.

General rights

Copyright and moral rights for the publications made accessible in the public portal are retained by the authors and/or other copyright owners and it is a condition of accessing publications that users recognise and abide by the legal requirements associated with these rights.

- Users may download and print one copy of any publication from the public portal for the purpose of private study or research.
- You may not further distribute the material or use it for any profit-making activity or commercial gain
- You may freely distribute the URL identifying the publication in the public portal

Take down policy

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

E-mail address:

vuresearchportal.ub@vu.nl

Summary

General Introduction

This thesis evaluated the effects of a front-of-pack (FOP) nutrition label in the Netherlands: the 'Ik Kies Bewust' logo (internationally called "Choices" logo). The aim was to evaluate the effects of the Choices logo on consumer behavior, product development, and on public health. This thesis starts with a General Introduction in **chapter 1**, in which the research area of FOP labeling is introduced. FOP labels aim to facilitate consumers to make healthier food choices and should stimulate product innovation towards healthier products. The FOP logo Choices is assigned to products that contain lower levels of sodium, added sugar, saturated fatty acids and trans fatty acids and caloric content and increased levels of dietary fiber compared with similar products within the same product category. The Choices logo is currently rolled-out internationally.

Summary of the main findings

Regarding the effectiveness of the Choices logo on consumer behavior, we conducted three studies. **chapter 2** describes a study among consumers using self-reported questionnaire data (n=2159) and focus group interviews with 41 consumers. The analyses showed that the exposure to the logo was generally high. Consumers reporting to be interested in health issues, more often reported that they used the logo than consumers less interested in health. Further, accurate explanation that the Choices logo is found on healthier choices within a specific product category appeared to be essential for the understanding of the logo. **chapter 3** describes the second study conducted among consumers (n=404), in which we used a combination of questionnaires and in-store product observations in 9 supermarkets. From this study it also appeared that consumers already interested in health issues purchased more logo products than less health-interested consumers, and that consumers who scored high on a hedonistic scale included in the questionnaire, purchased logo products less often than consumers who scored low on this scale. In **chapter 4**, a third study among consumers is described, in which we measured sales data in 25 worksite cafeterias by conducting a randomized controlled trial. We investigated the effect of labeling versus no labeling on employee's food choices during lunch. No nutritionally meaningful intervention effects were observed for the sales of sandwiches, soups, snacks, fruit, and salads. Again, employees who expressed an interest in health issues more often reported to use the logo to make food choices during lunch in the cafeteria. In **chapter 5** the implementation of the Choices logo in worksite cafeterias was evaluated by collecting questionnaire data from 316 catering managers. We found that in order to increase the implementation, the logo should be consistent with catering managers' ideas about healthy food, the workload of implementing the logo should be limited and it could be recommended to explicitly incorporate the logo in the health policy of the caterer. In **chapter 6** the effect of the Choices logo on reformulation and healthier product development among food producers has been investigated. We collected nutrient composition data of 821 products; these data were provided by 47 food manufacturers joining the Choices foundation. The results indicate that the Choices logo has stimulated healthier product development, especially where sodium and dietary fiber are concerned. In **chapter 7** the potential effects of consuming a diet complying with the Choices criteria on cholesterol levels of the Dutch population has been investigated in a modeling study.

We showed that consuming a diet complying with the Choices criteria will most likely result in a slight decrease in serum cholesterol levels. Finally, in **chapter 8** we present a review of the methodological quality of current FOP labeling studies. We found that evaluations of FOP labeling studies have varied greatly in methodological rigor and few methodologically sound studies are presently available. Measuring health effects of FOP labels in real life settings by using biomarkers would be the research challenge for the coming years.

General Discussion

This thesis is completed with a General Discussion in **chapter 9**. Generally, our studies show that the familiarity with the Choices logo is high in the Netherlands. However, actual use of the logo in real life settings is low, except for health-motivated consumers: they reported to use the Choices logo to make healthier food choices. Furthermore, this thesis shows that a FOP label such as Choices can be an effective tool to stimulate food manufacturers to develop healthier products. We have concluded that we should mainly focus on the producers and continue stimulating them to increase the availability of healthier products if we aim to achieve public health impact of FOP labels. In this way, we may reach all consumer groups – both the health-motivated and the non-health motivated ones.

Based on this thesis, we have formulated some recommendations for research and practical implementation. First, we recommend future studies to measure health effects of FOP labels in real life settings by using biomarkers of intake and cardiovascular risk factors in a longitudinal randomized controlled design. Secondly, it would be interesting to combine FOP labeling with other marketing techniques, such as pricing strategies, for example to investigate whether consumers purchase more FOP labeled products when these products are cheaper. Thirdly, investigating the effects of FOP labels in other settings, such as restaurants, would be interesting. Fourthly, investigating compensation behavior is highly recommended. Consumers may eat and drink more of FOP labeled products than of non-FOP labeled products because they think it is justified to consume more of these products. Finally, we would recommend governments to introduce some form of regulation regarding FOP labeling. Making FOP labeling mandatory may remove confusion. Additionally, providing food companies with financial incentives, for example, if 80% of their products comply with the criteria of a FOP label, may further stimulate healthier product development.

General conclusions

FOP labeling has a wider scope than only public health: it is about lobbying, conflicting interests and money. A vigorous international debate about the preferred format and potential impact of FOP labeling is currently going on. In this highly political debate, policy makers, scientists, the food industry and consumer organizations have their own interests. I have concluded that we should mainly focus on the producer if we aim to achieve considerable public health impact of FOP labels. Obviously, in order to keep food manufacturers stimulated to develop healthier products and use FOP labels, the consumer plays an important role as well. If consumers do not purchase healthier products and sales do not increase, food manufacturers will stop producing these products. Therefore, a FOP label is just one part of the bigger pic-

ture: if food manufacturers combine the development of new FOP labeled products with other marketing techniques, such as attractive product packaging, a low price, and a good taste, and if the food manufacturer has a reliable image, then consumers may purchase the healthier products and sales will increase. Increased sales may result in a positive effect on public health, provided that consumers eat products complying with FOP label criteria instead of regular products. Our scenario calculations showed that consuming a diet complying with the Choices criteria may positively contribute to cardiovascular risk reduction by influencing blood lipids. Yet, the most important question for all stakeholders - scientists, policy makers, food industry and consumer organizations - is: what are the actual effects of FOP labels on the health of our society? Answering this question will be essential for the future of FOP labels.