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Editorial

A wake-up call for nutrition labelling

In 2011, the European Union issued a new regulation on the provision of information on food for consumers[1]. The regulation includes new directives for the provision of nutrition information on processed foods. In response, a number of food manufacturers and retailers recently committed themselves to harmonize the nutrition information on their products[2]. In the USA in 2011, the Institute of Medicine published its recommendations for front-of-package labelling[3], and almost simultaneously the Grocery Manufacturers Association and Food Marketing Institute introduced their own labelling scheme[4]. In October 2012, the UK announced a voluntary front-of-package labelling scheme to be in place by summer 2013[5]. The issue of nutrition labelling has clearly been on a slow simmer for the past several years. This month's issue of *Public Health Nutrition* contains various papers that deal with nutrition labelling. The findings shed more light on how consumers perceive and use different systems.

In an experimental study, Goodman *et al.*[6] report how the presence of a front-of-package label effectively triggered consumers to select products with a lower sodium content in Canada. The study showed that a traffic light label with the most information (i.e. colour indications, sodium per serving size and percentage of daily values) was preferred over the less detailed ones.

The findings from a large cohort of French adults confirm consumer preference for the multiple traffic light system with basic nutritional information relative to four other front-of-package labels[7]. Interestingly, the positive perceptions towards the multiple traffic light system were characterized by a consumer profile with somewhat higher nutrition knowledge and reported use of the nutrition information on labels. The study also clearly shows how each perception pattern of nutrition labelling was associated with a distinct socio-economic profile, indicating how labels are perceived differently by different consumers.

To assess in more detail how consumers look at nutrition information on food labels, van der Merwe *et al.*[8] evaluate whether consumers could locate nutrition and health information on a label in South Africa. Although most consumers were able to read the labels correctly, they had more difficulties understanding the nutritional and health significance of the messages. The authors point out that the sample consisted of a better-educated group of adults and conclude that basic nutrition knowledge is a precondition for correct identification of information on a label.

Watson *et al.*[9] confirm this finding. Their study investigated how Australian consumers perceive various ways of referring to the energy content on nutrition labels, and compared how different statements referring to energy, calories or kilojoules on the labels were interpreted. In addition, the associations of these perceptions with the healthiness and intention to purchase a number of specific food items were investigated. The results are, to say the least, troubling. Most of the participants in the study – and in particular those from socio-economically disadvantaged groups – were uncertain as to what was meant by energy on the labels. Consequently, they favoured high-energy foods, as these were believed to be important for providing the necessary energy to make it through the day.

The research findings on nutrition labelling nicely complement two reviews on the same topic.

Van 't Riet[10] reviewed the effect of product health information at the point of purchase on food purchasing behaviour. The review found that the current evidence base is too heterogeneous and overall inadequate to conclude on the effectiveness of providing nutrition information to modify purchase patterns of foods. In addition, the review argues how additional efforts at the point of purchase, i.e. activities that increase motivation of consumers to make healthy dietary choices, might be required to ensure the effectiveness of nutrition labelling.

In a second review, Hawley *et al.*[11] evaluated the available knowledge on front-of-package and shelf label systems. In general, current research indicates that the multiple traffic light system has the most potential to change consumer behaviour, albeit the authors note that additional efforts such as information campaigns might be required to render it effective in real-life situations. The authors point towards the need for more studies on the effectiveness of nutrition information on food labels to change consumer behaviour in a free-living population.

Most studies on food labelling are in the development stage, with a focus on determining which design has the potential to be most effective in influencing food selection or purchasing decisions. Papers in this issue suggest likely candidates[6,11]. With multiple labelling schemes being developed[12], consumers would benefit from a standard, trustworthy system based on simple, logical criteria.

Ultimately, however, what we need is evidence that food labelling works. The assumption underlying the concept of food labelling of course is that messages on a

package will influence behaviour. We can only assume that food manufacturers and retailers have used food labels to influence consumer decisions over the past several decades with great success, although also supplemented with vast marketing efforts. But after decades of nutrition labelling, the findings in the present issue of *Public Health Nutrition* should be a wake-up call for researchers and policy makers in public health nutrition in two regards.

First, the current evidence on the effectiveness of nutrition labelling is inadequate. There is an urgent need to conduct real-life intervention studies with nutrition labels that measure the effect on hard outcomes such as food purchasing and dietary intake to begin with – evidence even on these immediate outcomes is lacking – but eventually also outcomes such as nutritional status and incidence of diet-related diseases.

Second, the studies make a strong case for the argument that nutrition labelling requires important preconditions such as a basic understanding of nutrition to effectively change consumer behaviour. Based on the findings of Watson *et al.*[9] we cannot assume that such preconditions have been met. As their observations originate primarily from a sample of volunteers – potentially the more motivated segment of the population – the public health significance of their findings cannot be underestimated. Socio-economic differences in the perception and use of nutrition information on food labels cannot be ignored, and the nutrient literacy of those who need the labels the most should be a matter of concern. Although the multiple traffic light system seems to emerge as the preferred format, it is clear that various consumer groups perceive labels differently. The 'one size fits all' approach must necessarily be modified to 'one size fits some', and the public must be educated on how to use whatever system is in place.

Although the idea of improving dietary habits by providing specific nutrition information on food sounds simple, the potential of nutrition labelling to improve population-wide dietary habits is still unclear. Amidst a debate on which system of nutrition labelling on foods is preferred, the central question is actually a much broader one: which investments in public health are likely to achieve behaviour change and against what (opportunity) cost? In an editorial last year in this journal, Barker *et al.*[13] drew attention to the failure of nutrition information on food labels to induce behavioural change in real-life settings; personal and contextual factors affect a person's motivation to change and must be considered. To date, few – if any – population intervention studies have documented a sustained effect on behavioural change after the introduction of nutrition information on foods. Providing an evidence base for the effectiveness of nutrition labelling on food purchases and consumption is a top priority for public health nutrition researchers. But such studies must proceed with a clear understanding of the limits of labelling.

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