A review of consumers' use and understanding of nutrition information on food labels

D. Mackison, A. Anderson and W. Wrieden
Dundee University, Dundee, UK

Food labels play a critical role in communicating nutrition information with considerable potential to influence dietary behaviour and food choices. The potential to assist consumers to make healthy dietary selections has triggered the food industry, government and health-related organisations to put food labelling on the policy agenda. However, recent developments from the Food Standards Agency (the traffic lights system) and from the food industry (guideline daily amounts) have called into question how best to guide consumers. The present review aims to identify and analyse current consumer use and understanding of nutrition information on food labels.

Relevant literature was located using the Medline, CINAHL and British Nursing Index databases, searching terms 'food label', 'nutrition information' and 'nutrition panel' on material published between 1987 and 2007. Searches were limited to the English language and managed using referencing software (Endnote® 9.0; Thomson ISI, Philadelphia, PA, USA). Further material was identified by searching food industry, voluntary sector (health-related and consumer) and national and international government websites and cross-referencing cited reports. Where applicable subscriptions to newsletters, digests and email updates were completed to ensure new research and reports from relevant organisations were collected.

Of the 265 relevant papers and reports, four review papers were recovered. From the material identified it was evident that most consumers claimed to read and understand nutrition labels. However, studies (objectively) assessing nutrition-label understanding suggest that consumers have difficulty applying arithmetical skills, performing serving-size calculations and comparing products of varying size and type. Little information is available on the consumers' use and application of nutrition information on food labels or their perspective on nutrition information in catering outlets. The impact of socio-demographic circumstances on food-label use and comprehension varies. Throughout the literature there is no consensus on the effect that increasing age or socio-economic status has on nutrition-label use. Reviews of the literature have deemed label-reading habits of older individuals as 'unclear'[1]. In relation to socio-economic status, deprivation score[2] has been shown to have no effect on label-reading frequency. Social group, however, has been shown to affect label reading, with participants from social group DE less likely to look at food labels than participants from social groups AB, C1 and C2[3].

Understanding why socio-demographic factors affect consumers' label-reading habits is essential in understanding general nutrition-label usage, as well as contributing to the overall understanding of label-reading usage and shopping behaviour of specific consumer groups. From the literature reviewed it is evident that more research is required to determine the impact of socio-demographic variations on the use and understanding of nutrition information. Further research is required to better understand the consumers' application of nutrition information read on food labels and how this information influences the consumers' food choice.

In conclusion, most consumers claim to use nutrition labels often or sometimes. Self-reported comprehension is positive, with many consumers describing food labels as easy to understand; however, this viewpoint is not reflected in objective assessment and may limit the potential use of food-label information.

1. Cowburn G & Stockley L (2005) *Public Health Nutr* **8**, 21–28.
2. Tessier S, Edwards CA & Morris EM (2000) *J Consum Stud Home Econ* **24**, 35–40.
3. Food Standards Agency (2005) Consumer attitudes to food standards 2004. http://www.food.gov.uk/multimedia/pdfs/casuk04.pdf