

What determines the nutrition knowledge of food shoppers across Europe?

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Researchers from Aarhus University, Denmark, and the European Food Information Council (EUFIC) have analysed socio-demographic and attitudinal determinants of nutrition knowledge of food shoppers from six European countries: UK, Sweden, France, Germany, Poland, and Hungary. Main findings include social grade, country of residence and age to directly influence participants' nutrition knowledge. Furthermore, older people, women and respondents of a higher socio-economic status showed a more active interest in healthy eating. The use of expert sources (physicians, dieticians and health associations) had only a small effect on how low or high the measured nutrition knowledge of participants in this study was.

In a total of six European countries, respondents were recruited in major supermarkets in three regions of each country. Food shoppers were directly interviewed about the product choices they made at the point of purchase and invited to complete a questionnaire at home, which measured nutrition knowledge and understanding of nutrition labels. In total, there were 11,781 in-store interviews and 5,967 completed questionnaires.

Overall, the UK had the highest nutrition knowledge, which was expected due to its number of nutrition education campaigns. One exception was knowledge about the sugar content of foods, which was higher in Germany, Hungary, and Poland. The results from the at-home questionnaire showed that 97% knew that health experts recommend eating a lot of fruits and vegetables, but only 15% thought that a high amount of starchy foods (e.g. bread, pasta, rice, potatoes) should be eaten. Most shoppers knew that foods and drinks high in fat, sugar, and salt should be consumed less often, but many thought these should be avoided all together.

UK respondents were the most knowledgeable about calorie content of selected foods and drinks. When asked how many calories were in a stated portion size, they answered 50% of the questions right while other countries answered 30-40% right. For the answers that were incorrect, respondents mainly overestimated the number of calories including those in beer and wine. In comparison, shoppers scored higher when asked about fat, sugar, and salt content of certain foods and drinks, although there was confusion about types of fat. The UK, Germany, and Hungary scored the highest followed by Sweden and France, and then Poland. In particular, France had the lowest knowledge about trans fats and Sweden and France knew least about which foods were high in salt. On the other hand, Hungary and Poland had a high knowledge of sugar. Most believed that health experts recommend consuming less salt or sodium, but 14% indicated that they didn't understand the meaning of sodium.

Social grade, country, and age seem to directly influence nutrition knowledge. Attitude towards healthy eating and use of expert sources had a small effect on nutrition knowledge. Older people, women, and those of higher social grades had a higher active interest in healthy eating, also known as monitoring. Monitoring was lowest for people with high Body Mass Index (BMI) and who had children at home. In

contrast, blunting, the extent to which people actively ignore nutrition issues, was highest for men and lower social grades. Expert sources of nutrition were used most by women, higher social grades, and people with higher BMIs but used least by older people. Though people with high BMIs reported using expert recommendations, they did not necessarily choose healthy foods. France had the highest use of expert sources.

In conclusion, consumers are aware of nutrition recommendations but less familiar with technicalities such as types of fat or the link between salt and sodium. Higher social grades have higher nutrition knowledge likely because of higher education. In general, all shoppers had trouble determining the calorie content of certain foods. Each country differed in its strengths and weaknesses - differences which are likely due to different cultures and foods as well as the number and type of nutrition-related public health campaigns. In each country there are also different industry and retail initiatives that can affect nutrition knowledge.

In light of recent developments in the food labelling landscape in the EU, these findings may help both policy makers and the food industry to better understand consumers and as such improve information and potential education of the public. Limiting factors of the research published include the self-selection of food shoppers (versus those that consume food bought by someone else) as well as the voluntary participation in completing the at-home surveys, which could be due to a naturally higher interest in nutrition and health issues.

For further information, see

[Grunert KG, et al. \(2012\). Socio-demographic and attitudinal determinants of nutrition knowledge of food shoppers in six European countries. Food Quality and Preference 26\(2\):166-177.](#)