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BACKGROUND

High levels of obesity worldwide have led to calls for calorie information to be put on food menus. Ireland's Obesity Policy and Action Plan commits the government to introduce legislation on calorie posting. In advance of this measure, some restaurants have adopted voluntary policies and put calories on their menus already. However, the size of the calorie information and where it is placed on the menu differs across restaurants. This may matter, because research in behavioural economics suggests that, in general, the size, colour and location of information affects how people respond to it. In research funded by the Department of Health, the ESRI's Behavioural Research Unit designed an experiment to test how the location of calorie information on menus affects whether consumers notice calorie information and how much they order, eat and understand.

METHOD

A representative sample of 142 consumers took part in a series of experiments on weekday lunchtimes. During a break between tasks, the consumers ordered lunch from an online menu. They were unaware that this choice was part of a carefully designed experiment. One third of consumers were randomly selected to see a menu with no calorie information, one third to see a menu with calorie labels placed between the description of the food and the price (calories to the left of the price) and the other third to see a menu that had calorie labels placed after the description of the food and the price (calories to the right of the price). Everything else on the menus (colour, font, size, food options) was identical. As the consumers viewed the menus their eye movements were recorded, to see where on the menu they were looking. After the consumers had eaten their lunch, the research team revealed that their choice had been part of an experiment and they answered some

¹ This Bulletin summarizes the findings from: Robertson D.A. and Lunn, P.D. (2020). The effect of spatial location of calorie information on choice, consumption and eye movements. *Appetite*, 144:1, 104446. <https://www.sciencedirect.com/science/article/pii/S0195666319306750?dgcid=author>

follow-up questions about what they had noticed. The amount that people ate was also measured, by weighing the food before and after.

RESULTS

Consumers who saw calories to the right of the price ordered and ate fewer calories. The effect was large and statistically significant. Those who did not see any calories on the menu ordered an average of 866 calories and ate 665. This compared to 703 ordered and 421 eaten by those who saw calories to the right of the price – reductions of 19% in calories ordered and 37% in calories eaten. The data on eye movements showed that with calories to the right of the price consumers looked at more calorie information than when calories were to the left. Consumers who saw calories to the right of the price were also more likely to know afterwards how many calories were in their meal. Moreover, the analysis suggested that it was these consumers who had absorbed the information who were behind the reductions in calories ordered and eaten. Importantly, there were no differences in how much people enjoyed their lunch.

CONCLUSION AND IMPLICATIONS

These findings provide clear evidence that exactly where calories are placed on menus matters. The study did not record opinions about calorie posting but measured actual behaviour. Participants made real choices about food that they then ate, unaware that they were in an experiment or that other participants had seen different types of menus. Hence, unlike most research in this area, decisions could not have been influenced by knowing or guessing the aims of the study.

Other findings from behavioural science show that multiple aspects of the layout and format of nutritional information play a big part in how much attention people pay to it. In this context, it is important to understand that the large reductions in calories ordered and eaten in the present experiment were recorded when calories were not only placed immediately to the right of the price, but also written in the same font and displayed at the same size. Thus, as legislation on calorie posting in Ireland is drawn up, a requirement for calories to be presented in this way would be supported by behavioural evidence.

The present study also demonstrates a broader point. Advances in behavioural science now mean that many policies and regulations can be experimentally pre-tested before being implemented. Such pre-testing has the potential not only to identify policies that are likely to work, but also to identify policies that are unlikely to work, thereby helping to avoid costly mistakes.

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