Commentary on: Sacks G, Rayner M, Swinburn B (2009) Impact of front-of-pack 'traffic-light' nutrition labelling on consumer food purchases in the UK. *Health Promotion International. doi:10.1093/heapro/dap032*

Mike Rayner, 27 January 2010

This publication has received some media attention suggesting that the paper demonstrates that front-of-pack traffic-light nutrition labelling has no public health benefits[1]. This suggestion is not valid. It is also suggested that those who advocate the use of front-of-pack nutrition labelling rather than alternative forms of front-of-pack labelling such as the %GDA format supported by many food manufacturers now have less grounds for doing so. This paper did not make comparisons between different formats for front-of-pack labelling – so this suggestion is also not valid. The aim of this commentary is to set the research into its context and to indicate how it should be interpreted within the totality of research into front-of-pack nutrition labelling.

Background and aim of the research

It is generally agreed that traffic light labelling – and other forms of front-of-pack labelling - has (and will have if implemented more widely) multiple effects – both on producer and on consumer behaviour and that these effects may be both long term and short term. Even those who oppose its implementation do so on the assumption that there are and will be effects (presumably more negative than positive).

It has been suggested that front-of-pack labelling might have direct effects on consumer purchasing and consumption behaviour (both long and short term) and indirect effects though effects on consumers' awareness of healthy eating messages. But it also suggested that it might have effects on producers' behaviour – because producers may reformulate their products in order to give them a more favourable nutritional profile to display front-of-pack (and indeed some retailers have claimed that this is so).

The aim of the research reported in the paper by Sacks et al was to examine just one of the postulated effects of front-of-pack labelling – i.e. on short-term consumer purchasing behaviour. The research only concerned one type of front-of-pack labelling – traffic-light labelling – and only on two types of product in the stores of one retailer in the UK.

One of the main reasons for carrying out the research was to demonstrate that sales data could be use to examine one of the possible effects of front-of-pack labelling. Representatives of both Sainsburys and Tesco – the two largest retails in the UK have in the past – claimed short term effects on sales of front-of-pack traffic-light labelling and %GDA labelling respectively. But as we point out in this paper the ways in which they did their analyses are unclear and the results of

[1] E.g. The Grocer, 7th November 2009

their analyses have never been published in peer-reviewed journals and so their claims cannot be verified.

Interpreting the results

That the research was unable to demonstrate differential effects of front-of-pack traffic-light labelling on the short term purchasing behaviour of consumers in one particular set of circumstances does not mean that such labelling has not had other effects or that it would not have such effects in other circumstances (e.g. where traffic-light labelling has been implemented more widely).

The paper also shows that sales data can be used to examine the effects of labelling changes on sales. Note that we did find a significant effect on the labelling change on the overall sales of one of the food categories we examined. It therefore challenges retailers and others interested in the effects of front-of-pack labelling (such as the UK Food Standards Agency) to fund – preferably independent – research into the effects of traffic-light labelling using sales data.

That sales data can be used to investigate the effects of labelling changes has been demonstrated previously (e.g. Levy, AS and Stokes, RC (1987) Effects of a health promotion advertising campaign on ready-to-eat cereals. Public Health Reports 102: 398-403 and other papers cited in Sacks et al).

The conclusions

The paper by Sacks et al suggest that if front-of-pack labelling (in any format) is to be recommended as a public health intervention then we need to be clear about its effects on consumers and producers.

This paper helps, in a very small way and limited way, to clarify what those effects might be. It suggests that where traffic-light labelling is introduced on a restricted range of products there **are** some detectable (short term) effects on sales but there is likely to be no association between changes in sales and the healthiness of the products.

There are two problems with the methods and hence the generalisability of the results. Firstly the research was only carried out using the sales data from one retailer and on one particular front-of-pack labelling format. It only looked at the sales of two types of products. The results should only be generalised to other retailers, other formats and other products with extreme caution.

Secondly for reasons explained in the paper we were only able to look at the sales of very few products. The changes in sales of these products after the introduction of labelling were also – in some cases – large. This means that if there were small differences in the effects on 'healthy' and 'unhealthy' product sales these would have been difficult to detect. I.e. the power of the study to detect small differences in sales by type of product was low.

Nevertheless it is also perhaps unreasonable to expect front-of-pack labelling – by itself and in the absence of any other change to the way products (both healthy and unhealthy) are promoted - to have large effects on the short term sales of particular products. We know from observational studies that consumers do not look at food labelling very often and this alone means that effects on short terms sales are likely to be limited.

The paper suggests that 'Further research on the influence of nutrition signposting will be needed before this labelling format can be considered a promising public health intervention'. This conclusion does not mean that we need more research before we take action to improve the comprehensivity or comprehensibility of nutrition labelling through all possible means.

In particular the conclusion should not be taken to suggest that the European Commission should not press ahead with European legislation that would make front-of-pack nutrition signposting compulsory or that format for this should be other than traffic-light labelling.
Traffic-light nutrition labelling – on logical grounds alone - is the most comprehensible format currently being proposed by a significant number of bodies – and in particular those who are concerned with public health.

The conclusion just means what it says – we need further research if those concerned about food labelling from a public health perspective – are to be even more effective than they have been in advocating labelling change.