



## **EDITOR'S CHOICE**

## Food for thought

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"During the past month, about how often did you eat hot spicy foods?" Jun Lv and colleagues put that question to over half a million Chinese adults (doi:10.1136/bmj.h3942). In 3.5 million person years of follow-up the risk of death was consistently lower in those who ate spicy food regularly than in those who ate such food less than once a week. The authors acknowledge that residual confounding is possible despite their attempts to adjust for other risk factors. Editorialist Nita Forouhi underscores the need for caution, saying that it is too soon to know whether spicy food directly reduces the risk of death or is simply "a marker of other dietary and lifestyle factors" (doi:10.1136/bmj.h4141).

Nutritional epidemiology studies are always a tease. They are intriguing but cannot show cause and effect (doi:10.1093/ije/dyg216). They depend on self reported recall of food intake, which is imprecise and subject to limitations of memory. Food writer Michael Pollan has said that "to try to fill out the food-frequency questionnaire used by the Women's Health Initiative, as I recently did, is to realize just how shaky the data on which such trials rely really are" (http://nyti.ms/1M95sdJ). Food consumption is often measured only at the start of a study, yet follow-up may extend over years or decades, making it difficult to account for changes in dietary habits.

Perhaps the biggest problem is that diet is intimately bound up with—and difficult to disentangle from—many other things that influence health, including other health behaviours as well as wealth and education. John Ioannidis has suggested that even consistent results across studies may reflect not causality but

"a literature that is written, peer reviewed, and edited by fervent believers who will not accept any result other than what perpetuates their beliefs" (http://bit.ly/1IJV4ql).

Sceptics of nutritional epidemiology will be tempted to say "I told you so" about the news that major changes are ahead for US dietary guidelines. The advisory committee for the guidelines says that recommendations to limit cholesterol and total fat intake should be abandoned. The type of fat rather than the quantity seems to be most important in determining blood lipid levels, and attention is now focused on the benefits of the traditional Mediterranean style diet.

Editorialist Daan Kromhout says this change in recommendations represents a major reversal of policy because "the low cholesterol, low fat diet has been the cornerstone of public health nutrition since 1980" (doi:10.1136/bmj.h4034). Certainly recommendations to reduce overall fat intake have done nothing to curb the obesity epidemic and may have contributed to it. Obesity rates have risen dramatically despite reductions in fat intake, perhaps because low fat foods are not always low in calories or sugar (doi:10.1159/000229004).

While we wait for the nutritional experts and epidemiologists to sort it all out, just what should we be eating? Michael Pollan's famous answer to that question seems the best one: "Eat food. Not too much. Mostly plants." And while you're at it, why not hedge your bets by dousing those vegetables with chilli sauce?

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