

Science

How to improve the

It's been called the 'biggest public health crisis facing the UK today'. One in four British adults is obese – and the UK tops the obesity league in Western Europe. At the Centre for Diet and Activity Research (CEDAR) in Cambridge, Dr Jean Adams is investigating interventions that could help. PAUL BRACKLEY found out more.

How do we encourage people to eat more healthily? It's a question that researchers at CEDAR take a scientific approach to answering. "We know that people want to eat well," says Dr Jean Adams. "When you ask them, they say yes and they particularly want to feed their kids well but they find it hard for lots of reasons.

"Children see food marketing and they ask for something. Some food that's cheap and convenient is not particularly healthy. So in their daily lives, it can be hard for people to enact those choices.

"As a scientist, it's not my job to say whose responsibility it is, but I know that people find it difficult to do what they want in terms of being healthy because of the environmental barriers."

CEDAR, a partnership between the University of Cambridge, the University of East Anglia and the MRC Epidemiology Unit in Cambridge, has spent nearly nine years exploring what can be



Dr Jean Adams, of the Centre for Diet and Activity Research, Cambridge

done to help people be more active and eat healthier diets.

"We are looking at this at a population level. We are not about getting people in and telling them they should eat more apples and fewer biscuits but about how we can change the environment to make it a healthier place to live," explains Dr Adams. "We would say the opportunities for being healthy are really important."

What role does education play in a healthy diet?



A fish and chip meal typically contains about 3g of salt

For physical activity this means, for example, having safe cycling and walking routes to help people exercise in their daily lives.

"It's similar for diet," says Dr Adams. "We think about what food is in the shops, what's in the food that people buy, how expensive or cheap it is and how that influences us."

CEDAR's latest study, published last Thursday, concluded that those who cooked more often at home were less likely to consume heavily processed foods, like sausages, burgers or sweet snacks, which tend to be higher in saturated fat, sodium and sugar than other foods.

Dr Adams and Matthew Chak Leung Lam analysed food diaries from 509 adults to find that regular or more confident home cooks consumed around 3-4 per cent less energy from 'ultra-processed foods' than others – equivalent to about half a can of Coca-Cola.

"People who cook more are less likely to eat heavily processed food," says Dr Adams.

So is part of the answer to our nation's expanding waistline a drive to improve our cooking skills?

It's a question that Dr Susanna Mills, a PhD student at Newcastle University, has been working to answer with Dr Adams.

"Susanna started by looking at what influences whether people cook. She looked at previous studies and drew them together.

"Her key conclusions were that it's more than just cooking skills that influence whether people cook or not," says Dr Adams.

The need to cook for others in the home, or a sense of identity as a cook are among the factors influencing how much people use their skills.

"Susanna's review helps us understand that just being able to cook doesn't mean that you will. It's the wider community factors that might influence whether you do," says Dr Adams. "People cite factors like time and talk about the cost of cooking. We do know people have been spending less time cooking in the last 50 years."

The rise of the ready meal could be a response to that – or maybe even a cause – and these too have been studied by CEDAR, one of five Centres of Excellence in Public Health Research funded through the UK Clinical Research Collaboration.

"We published a piece a number of years ago that compared the nutritional content of recipes in celebrity chef cookbooks with that of ready meals. We had the idea that ready meals would be the least healthy alternative at home. But we found that overall the ready meals stacked up better on key nutritional indicators," says Dr Adams.



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eating habits of a nation



Over the last 50 years, people have spent less time cooking from scratch – and ready meals and takeaways are typically higher in fat and salt

This might say more about some celebrity cookbooks.

"This is not universal, but often the meals they produce are luxurious versions and they don't see them as everyday meals. But then there are things like '30-minute meals' and lots on how to cook quickly. I think those fill that gap," adds Dr Adams.

For a nation that is spending less time cooking, we certainly seem to enjoy watching others do it on TV.

"That saturation of cooking in the TV market does need to be looked at as entertainment," suggests Dr Adams. "There's a risk that if you say 'Cook more' people think you mean the sort of cooking like they see on TV and that can be off-putting."

How do we get people to cook more?

"I suspect it's about making it culturally appropriate – make it a normal thing that people do, making it quick, easy, accessible," she says.

That, then, must surely begin with education.

"Food and cooking were reintroduced into the national curriculum a few years ago. We don't know whether it works or makes a difference yet but people care enough to include it," says Dr Adams.

"The School Food Plan talks a lot about a whole school culture around food and encouraging children to be interested and enjoy food from a really early age and understand where it comes from. There's very little scientific evidence that it makes a difference but clearly it makes sense to people."

If encouragement and education are weapons in the war on obesity, so too are trade restrictions and punitive tactics – such as measures to stop the proliferation of takeaways. A quarter of the UK population eats a takeaway at least once a week.

"Local authorities are increasingly worried about takeaways in their areas. There is some work my colleagues have done in CEDAR about people living in areas with more takeaways being more likely to eat takeaways and to be fatter."

"There have been two approaches – one is local authorities thinking about how to restrict planning approval for new takeaways and the other is how we might improve the quality of food that is served."

On the latter point, one intriguing study focused on the issue of salt in fish and chip shops.

"We and others have found that a fish and chip shop meal on average

has about 3g of salt, half of the recommended maximum daily intake. A guy in Gateshead noticed that the shaker that chip shops were using was actually a flour shaker that a baker would use with 17 holes in and we thought, 'what if we just had fewer holes?' He came up with one that had five," says Dr Adams.

Lab tests proved these delivered about a third of the salt when shaken for the same amount of time – but would it work in chip shops?

"In practice we were worried servers might be influenced by the amount of salt coming out and we found some evidence of that – the result was much less clear, but importantly there was a difference."

"The other important thing was that it was really easy for shops to do – sustainable and acceptable."

Some shops that switched used up to 60kg less salt a year. But would customers accept the change?

"Salt is an individual preference," said Dr Adams. "And you can train yourself. If you don't eat salt for a while, you'll stop liking the taste of it and you'll find everything salty."

Similarly, could a sugar tax alter the UK's sweet tooth?

Draft legislation published last December proposed a tax on sugar-

sweetened drinks – excluding fruit juices and yoghurt drinks – that could add 18p-24p to the price of a litre of fizzy drink if the full cost is passed on to consumers.

"We are starting a big study in July on the sugar tax," says Dr Adams. "There's evidence from Mexico and Berkeley in California that changing price seems to change how much people were buying. But in this country, it's very clearly tied to how much sugar is in the drink so you pay a lower amount of tax if there's less sugar in them. The idea is manufacturers will reformulate their products."

While Dr Adams continues to explore such interventions, she has also joined the steering committee of the Global Food Initiative in Cambridge.

"As a public health representative, I represent the point of view that this is not just about feeding people, it's about feeding people well," she explains.

Does Dr Adams live up to her advice at home? "I try not to be too obsessive about it. I try and have some basic rules I stick to. I'm a vegetarian so I find that makes it easier, as my diet is more plant-based. And I personally enjoy cooking. But I like making cakes and eating them too!" she adds.

'Mum... can you buy me that?'

"There is lots of evidence that food marketing influences what kids want to eat, what they buy and ask their parents to buy for them," said Dr Adams. "We have restrictions on food marketing for kids on TV in this country that came in about 10 years ago. They apply to

children's channels but whether they apply on other channels depends on the proportion of kids watching. "We did do a study of this. We found the adverts were moving more from children's TV to family TV, where kids were still watching, so we didn't find a

difference in the number of adverts for less healthy food that children were seeing. "That's why people have called for stricter regulation on TV food advertising – like a 9pm watershed so there was no advertising of less healthy food before then."

