Editorial

Stephen Luntz

We're all familiar with the phrase "you are what you eat". Like other clichés, we hear it so often it loses its meaning, but food is certainly an important part of our lives.

We seldom think, however, about the amount of science that goes into our daily food. This edition of *Issues* explores the science behind the food we eat and our diets from a number of different angles.

For a start there is the question of the "obesity epidemic". No one disputes that throughout the world the population, on average, is getting heavier. Health researchers in the developed world consider this a crisis.

One recent major report found that obesity was the second biggest health problem in America after smoking, and would soon become the first. However, a review of the data caused a drastic revision, concluding that obesity actually ranked a long way further down the list when it came to causes of death.

So just how much of a problem is being overweight? Not much, according to Lily O'Hara (p.11). She argues that once you allow for fitness, being overweight is barely a health risk at all. "There is significant evidence that demonstrates that weight is a very poor predictor of health outcomes when other factors such as physical activity are accounted for," she writes.

In fact, O'Hara believes that it is the emphasis we put on weight that is really unhealthy. "The range of harms associated with the weight-centre health paradigm to date include increased body dissatisfaction, eating and physical activity disorders, and size-based bullying, harassment, violence and discrimination," she writes.

On the other hand, Melanie McGrice (p.8) takes the more conventional view. Like most health authorities, she believes that obesity is something we need to address urgently before death rates start to spiral. She says: "The implications of obesity are serious and scary."

Even if we accept, however, that our society has a weight problem there are plenty of questions about what to do about it. Barbara Santich (p.4) points out that the idea that too much fat or too many carbohydrates are the problem fails some basic tests.

Santich notes that the French eat what would seem to be an unhealthy diet, but are far less fat than Americans. The reason seems to be, at least in part, that "portion sizes in fast food chains in both countries, and also in comparable restaurants, were on average 25% larger in America. Individual-portion foods in supermarkets also tended to be larger in America than in France."

Perhaps the whole question would go away if we stopped trying to cut certain things out of our diets and just ate a little less of everything. Alas, such a simple approach is never likely to make anyone rich. Consequently our bookshops groan with diet books assuring us that this diet or that will make us slim and, by implication beautiful and successful.

Of course, most of these books have no science behind them at all, and many of the others have only a little. Actual research showing that something works under controlled conditions seems to count for little in comparison to a particular diet rumoured to be the reason why a Hollywood star has regained her figure.

We all know that habits can be hard to break and many of our habits are set in school. A long-term contribution to the problem may include healthier canteens. Rita Alvaro (p.15) argues: "Canteens can help model and reinforce healthy eating messages that are given in the classroom. Providing healthy food in the canteen can also help children put the healthy eating messages into practice."

But a healthy diet is not simply one that will make us the right weight, but should provide our entire complex nutritional needs. With such an array of foods available to us, it is amazing how many Australians are not getting enough vitamins, iron or calcium. On the other hand, when you look at the substances on offer at many large fast food chains maybe it is not so surprising after all.

There's an alternative to fast food though, and it's not just better for your health – it's better for the environment as well. Called the Slow Food Movement, it celebrates local, sustainably grown food and seeks to preserve the amazing diversity of foods grown and made around the world.

Elena Aniere (p.17) says: "Slow Food is a grassroots international non-profit association that links pleasure and food with awareness and responsibility".

The tastes are far more subtle than anything you will find at your local fast food outlet, and usually more expensive as well, but the fast growth of the movement shows that many people prefer food that doesn't harm the planet, brings a piece of local culture with it and offers a richness of taste that mass production cannot match.

Whether your taste buds run to fast food, slow food or something in between you have the right to know what is in your food and what it will and won't do for you. This is where Food Standards Australia comes in.

Graham Peachey (p.21) writes: "However, if we want to modify or even maintain what we are in an evolving food supply, we need to know that the information provided in the market place is relevant, accurate and truthful."

While some celebrate food's traditions, others are rushing to use science to make the food on our shelves do things it never could before. Dimitrios Zabaras (p.25) explains the science of food aroma and how it is used to create new, convincing flavours.

On the other hand, Food Science Australia (p.19) is working to create "functional foods" that do much more than just give you the energy to get through the day. Its research covers everything from vitamin-loaded food colouring to a process called "microencapsulation" that adds the omega-3 from fish oil to foods while removing the unpleasant smell.

Most of the food we eat now comes in plastic packaging that does not biodegrade, but Mike Hubbert (p.42) says this might all be about to change, along with quite a few other things we're used to in packaging.

The most passionate debate about food and science is about the use of genetically modified (GM) plants as food crops. *Issues* 69 covered the implications of GM for the fight against hunger in developing countries, but the issues in the developed world are different since there is no problem of a food shortage. The question here is whether GM crops will make our food healthier or more dangerous.

David Tribe (p.34) argues that when the problems with our current food supplies are considered, the threat from GM looks small compared with the potential benefits. However, Jeremy Tager of Greenpeace (p.30) argues that cases of untested GM crops making it into our food supply demonstrate that our regulatory bodies are not up to protecting us from novel foods that may turn out to harm our health.

It's hard to have an intelligent debate about any aspect of food when there are so many misleading myths around. Dietician and skeptic Glenn Cardwell (p.38) decided there were just too many myths about food to tackle them all, so he decided to concentrate on hydration and drinking. The things he uncovers gives you some idea of the scale of what we think we know – but don't.

Finally, we have a somewhat lighter note. Chocolate is an easy food to demonise. It's full of fat and sugar, but it also contains chemicals that are believed to be good for your health. So overall, what's the verdict. Turn to page 44 to see what Victoria's Better Health Channel has to say.

Versions of several of these articles were delivered at the Australian Institute of Food Science and Technology's 38th Convention.