



Changing diets

For at least a decade, nutritionists have been taking their message to the public — aided by governments and bodies such as the National Heart Foundation — in an effort to improve our health through the promotion of good eating habits.

A casual glance in shopping trolleys would suggest that people have changed some of their perceptions of what is good or bad to eat, and retailers are increasingly catering to the new demand for 'healthy' foods. Perhaps it's time to take stock of how we're doing, and find out more precisely how eating habits have changed, and to what extent people's knowledge of nutrition has improved.

Are there differences between the sexes and age groups, between city- and country-dwellers, or between different social groups in their patterns of nutrition and knowledge? And what



remains to be done to improve the eating habits of the nation?

In an effort to find out, Dr Katrine Baghurst of the CSIRO Division of Human Nutrition in Adelaide carried out a survey in South Australia in August 1988. Of the 901 adults taken at random from the electoral rolls who completed detailed questionnaires, about half lived in Adelaide's metropolitan area, while the other half came from the rest of the State.

As well as detailed questions on what they ate and how they prepared their food, Dr Baghurst and her team also asked the subjects whether they thought that they currently ate too much, too little, or about the right

amount of various nutrients.

For macronutrients — such as protein, fat, and sugar — and for salt and fibre, just over half the subjects felt that their intake was about right. In fact, as analysis of their reported diet showed, only about 30% fell within the recommended guidelines.

With complex carbohydrates — popularly referred to as starches — it seems we have less confidence in our own assessments: nearly half of the respondents stated that they didn't know whether their intake was high, low, or about right. Only 1% thought that they ate too little. But, truth to tell, it turned out upon analysis that very few respondents were eating enough complex carbohydrate.

Confusion also surrounded the term 'energy' as used in nutrition. We have all heard of calories or kilojoules and many of us slavishly count them! But apparently plenty of people don't realise that these are merely measurements of the energy value of foods.

One-third of all respondents felt that their calorie intake was 'too high', but only 5% thought that they consumed 'too much energy'. Not understanding that one is a measure of the other, many people think that calories are

bad, whereas energy sounds good and 'positive', and something we would all like to have more of!

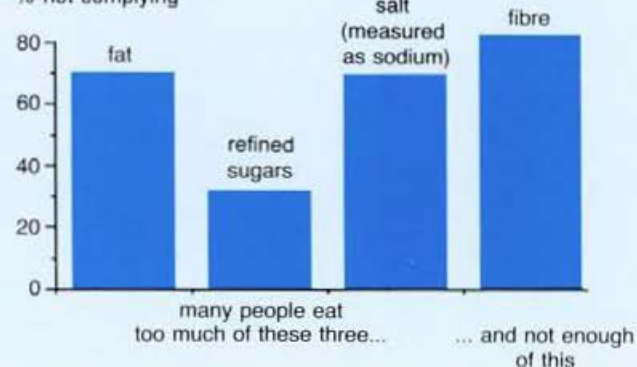
The survey showed that women consumed more low-fat products than men, and tended to cut the fat off meat and use less fat in cooking. However, despite this, the percentage of their total energy derived from fat was the same as for the menfolk. This was probably because they consumed more dairy products, cakes, pastries, chocolate, and salad oils.

Using a means devised by sociologists for classifying people into five groups according to the status of their occupation, Dr Baghurst found significant differences between the socio-economic classes. Men in the highest group — professional and managerial people — ate more fibre and less fat than those in the lowest one, who were predominantly unskilled manual or clerical workers.

The diets of large numbers of people in the survey did not comply with the Australian Better Health Commission's targets for good nutrition.

Are we on target?

% not complying



The middle three occupational groups consisted of semi-professional people and skilled manual and clerical/sales people.

In women, those in the lowest group consumed far more fat than those in the top four groups, which were all about the same in their fat consumption.

Men tended to eat more cholesterol than women, and the lower their occupational group was the more of it they ate. Those in non-metropolitan areas consumed the most. The top occupational category had a higher intake of wholemeal bread, reduced-fat milk, and fruit juice, while those in the fifth class ate more white bread, lamb, sausages, whole milk, sugar, sweetened soft drinks, and beer.

However, members of the top group were not all good in their habits: they consumed more alcohol than the other social groups — mainly in the form of wine, port, and sherry — especially if they lived in the city.

In general, women ate more vegetables, fruit, fish, poultry, cakes, pastries, and dairy products than men, who instead had more cereal foods and meats. As you may expect, younger people tucked into more confectionery, snack foods, and soft drinks than the older generation, which made

up with green leafy vegetables and more wholemeal bread and potatoes.

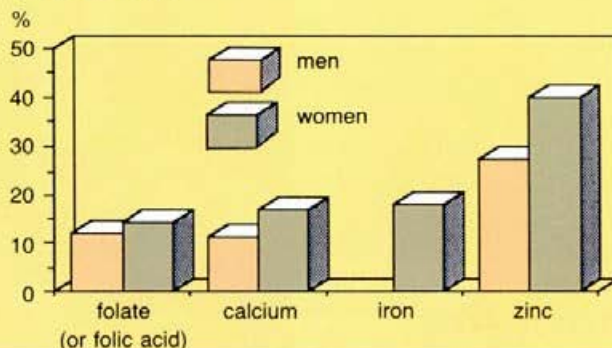
On the basis of what the respondents reported that they ate, Dr Baghurst calculated their intake of various vitamins and minerals. The interesting finding here was that a surprisingly large number of people received less than 70% of the recommended daily allowance (R.D.A.) — a level generally regarded as signifying a risk to health — for various important nutrients.

Zinc was the element whose intake was most likely to be inadequate, with 40% of all women and 27% of men falling below the 70% level. Deficiency of calcium was also a risk, with 17% of women and 11% of men receiving what is regarded as too little.

As usual, iron showed up as an element for which women need to be alert to ensure that their diet provides a plentiful supply. Because of regular loss of iron in the blood through menstruation, women need more of the element than men, and for 18% of those surveyed the diet contained too little. None of the men fell below 70% of the R.D.A. for iron.

Folic acid, or folate — a necessary organic compound that we cannot synthesise — was also too low in the diets of 12% of the men and 14% of the women in the sample.

Not enough



The chart shows the percentages of those surveyed whose intake of some important micronutrients fell below 70% of the recommended dietary allowance.

Meat and dairy products are good sources of zinc and folate, and the decline in the consumption of these products in response to the nutritional message to reduce the intake of fat might have been responsible for the findings of low levels of the two nutrients in the diets of so many. Recent studies in other 'Western' nations have given similar findings.

However, that doesn't mean that we need to return to high levels of consumption of animal products. Whole-grain cereals and nuts are relatively rich in zinc, while green leafy vegetables, bread, and — some will be relieved to hear — beer are examples of good sources of folate.

Compared with the findings of similar surveys in South Australia carried out about 10 years ago, the typical diet has slightly improved. Consump-

tion of fat and refined sugar has decreased a little, while that of fruit and fibre has increased. However, the average diet — at least in that State — is still higher than recommended in fat, salt, and protein and lower than it should be in complex carbohydrate and fibre, and in various micronutrients.

Unfortunately, many respondents were not aware of the deficiencies of their own diets, although most had taken in at least part of the nutritional message of the past decade.

Roger Beckmann

'The South Australian Nutrition Survey, 1988. Report to the South Australian Health Commission.' K.I. Baghurst, J. Record, J. Syrette, and P.A. Baghurst. (CSIRO: Adelaide 1988.)