

Out of the Box

We hear that by 2050 most British adults will be obese. Is this so, and if so, so what? This column includes a report on beneficence from the sugar industry, a riff on the geopolitics of sandwiches, and a suggestion for a rallying call. Productive New Year!

Galloping extrapolitis

Official bodies are upping the ante on obesity. Remember the scene in the movie *Crocodile Dundee* where our hero scoffs at the switchblade of a would-be mugger and whips out his massive weapon saying ‘Call that a knife? *That’s* a knife?’ In 2004 a UK Commons Committee estimated the then national cost of obesity at around £3.5 billion a year⁽¹⁾. Now the UK government’s advisory Foresight group, with the air of a poker player pushing a suitcase of chips into the middle of the table, leaning back and saying ‘double, and triple double’, has come up with a projected £45.5 billion for 2050⁽²⁾. *That’s* a statistic.

Commenting, Philip James, mastermind of the IOTF, has been at his most sepulchral: ‘We are facing a far worse scenario than our gloomiest predictions’, he says. Tut tut: IOTF stalwarts have for the last decade been constructing ever more apocalyptic extrapolations, and have helped to guide the Foresight analysis and the media response. Yes, weight gain is out of control all over the world now, though anybody who suggests that obesity is a worse crisis than smoking or AIDS needs their motives examined. That said, here comes a diagnosis, an objection and a challenge.

Exactly what is the basis for obesity projections? Take Brazil, where I live. An attractive IOTF graphic suggests that around 15% of adults in Brazil are now obese⁽³⁾, and that by 2025 over 20% of Brazilians will be obese⁽³⁾. But the latest figures for Brazil show that, in 2003, 8.8% of men and 13.0% of women were obese. In men obesity continues to rise, but since 1989 has increased only marginally in women – indeed, its prevalence among women in the three upper income classes decreased between 1989 and 2003⁽⁴⁾. I asked Carlos Monteiro, the Brazilian obesity maestro, what he thought of the IOTF projections. He says they are wrong (Monteiro C, personal communication). I diagnose *statisticulitis var. extrapolans*, also known as Campaigner’s Flim-Flam.

I object to the recent tendency to conflate overweight with obesity and also to intimate that BMIs well under 25 are pathogenic. By their nature, cut-offs like BMI 25 are arbitrary, and yes, rapid weight gain in children and Asians evidently does now increase the risk of diabetes

almost irrespective of BMI. But this does not mean that all adults should be at or shrink to a BMI well below 25 (short of 18.5). One, this won’t happen. Two, if taken seriously it would drive even more people to worse than useless dieting regimes, and to drugs and surgery. Three, yes it’s crucial that children are breastfed and grow up active and slim. Four, the issue is surely not body mass but the nature of the foods and drinks being consumed.

Where is the evidence that adults living in parts of the world where food supplies have been secure for a few generations, are at much extra risk of any disease at BMIs of say 23–24? If the evidence is there fine, but let’s see it. This needs debate.

Obesity: ching, ching

My challenge is on the £45.5 billion conjuration, which if the UK is taken to be sort-of average, could become a global 2050 abracadabra of \$US 10 trillion. Now *that’s* a statistic: we are talking the current US annual national debt here.

Suppose such extrapolations turn out to be accurate. Are they devised in order to make politicians shiver in their shoes and change their ways? They will have the opposite effect. Clothes manufacturers will bask in built-in obsolescence. Makers of airline and public transport seats will be in a well-upholstered job for life. Visions of a tape-measure in every school lunch-box will boost the shares of haberdashery accessory manufacturing companies. Every marina will feature a bariatric surgeon’s yacht. Burger and pharmacy high street chains will boom and synergistically merge. As my own contribution to the extrapolation craze, I predict that sales of the top five obesity drugs in 2025 will exceed the turnover of most small sub-Saharan countries. Fatness is great business, which means happy governments.

True, very obese people are more likely to be out of work and thus a drag on social security, but this will only be a big deal in a full-employment economy. Besides, unemployed zeppelin helots browsing on junk, watching television and playing computer games are cheaper than muscular *boi polloi* who get into mischief and spend much of their lives working out in the slammer at the tax-payers’ expense.

Obesity is fuelling national ‘development’ all over the world: ‘developed’ countries are those that turn over most cash. That’s what ‘development’ means. In the UK Health Secretary Alan Johnson has been rising in the House of Commons, saying that obesity really is appalling and

something must be done. Meanwhile I see Chancellor of the Exchequer Alistair Darling licking his lips. The fatter a population, the better developed the country. Ching, ching! Or am I missing something? If my economics are wonky, please put me right, in the letters column.

Sweetness and might

A game for academics when gathered together for merriment and diversion is to invent amusing combinations of endowed professorship and discipline. Some possibilities involve black humour. Thus 'The Rupert Murdoch Chair of Media Independence' or 'The al-Saud Chair of Shoah Studies' or 'The Halliburton Chair of Iraqi Child Health' or 'The Altria Chair of Tobacco and Well-Being'. In our field one favourite is 'The Tate & Lyle Chair of Human Nutrition'.

Lo, this now exists! King's College London has announced this £4.5 million endowment; the closing date is in a few days as I write. The job specification explains that the successful candidate will be undertaking research on obesity, diabetes, the metabolic syndrome and the effects of carbohydrates on gut health⁽⁵⁾.

The issue here is not the benefaction. Few people have a problem with the original source of money for London's Tate Gallery, because there is no direct conflict of interest. The issue is the conflict. Is sucrose relevant to weight gain, diabetes, gut health and the metabolic syndrome? Sure. Does the sugar industry want to erase sucrose as an evident cause of diseases, even of dental caries? You bet. Does this affect the standing of research done by a department of nutrition endowed by Tate & Lyle? Yes.

To apply the tests used in law, would a reasonable person, knowing the source of funding for this chair and the job-spec, believe that consequent research findings would be unbiased? Suppose the KCL Tate & Lyle professor's team found some tasty biological pathways indicating that sucrose as contained in soft drinks was just as likely as high fructose corn syrups to cause deranged gut microbial ecology, or weight gain, obesity *et seq.*, would reasonably knowledgeable people expect to see this as the headline news in the paper as finally prepared for publication? In my opinion no, they would not.

What seems more likely is a general eyebrow-raising and tooth-sucking, not only about such work, but also I am sorry to say, about the nutrition division of King's College London. Word gets around.

Maybe I am wrong. Maybe journal editors feel no need to mention professorial endowments in lists of authors or declarations of funding and competing interests, so everybody would forget. Maybe the sugar industry has endowed professorial chairs all over the world, in which case apologies for singling out KCL. Maybe it's only rancid food activists who think there is any issue here. What do you think?

Declarations of what?

Just exactly what is a competing interest, and what use are the declarations that appear at the end of papers in academic journals? Let's take some fictitious examples. This isn't just about sugar. Never mind about sugar, think general.

Researchers, in their publications, should declare the source of their funding and support for specific projects. If you get material support from Big Beast Pharmaceuticals in your quest to discover whether serum levels of vitamin 666 in tiny tots rise after administration of 666 pills or shots supplied by Beast, you are expected to say so. You certainly should say if Beast commissioned the study.

Absolutely you should say if Beast staff guided the protocol of the study or its write-up and conclusions. But here's a problem. Beast won't mind you giving thanks for the gear. But Beast will not want you to say 'thank you, Beast, for controlling "my" study written up by your people, with me as Beast stooge' – and nor will you. The implication is that declarations are liable to be only of relatively trivial competing interests.

Also, why should declarations be confined to support of the specific published study? Take an imaginary investigator who works in the department of Gobbleomics, within the division of GenTech, within TRI (the Translucency Research Institute). Should the declaration in published papers list the researcher's boss, Dr Ivor Billion the Leviathan Globalomics Inc. professor, who secured more Leviathan money for the project? Should it list members of the TRI Board of Regents who (according to the annual report or as Googled) are heavy-hitting biotech industry executives? Should the researcher ask Prof Billion for a list of all Globalomics funding and Gobbleomics competing interests relevant to the subject of research?

This would not happen. The researcher would get the heave-ho, for a start. But this is all relevant to the study and its conclusions. Again, I say that conflict declarations are likely to be no more than acknowledgement of weed on the surface of a deep dark pool.

Not by bread alone

Like money, nutrition is valuable in itself and also in what it represents. Both touch much of life. Here is a riff on bread. When I lived in England and before I started to learn about nutrition and food policy, I assumed that bread was a universal staple food, as attested in Christian Biblical phrases like 'man shall not live by bread alone' and 'give us this day our daily bread', and indeed by the miracle of the loaves and fishes and the Last Supper⁽⁶⁾. I thought that bread made from wheat was the universal staple, and that bread made from rye and other grains was exotic delicatessen.

What ignorance. Walter Yellowlees, who celebrated his 90th birthday this year, has sharp things to say about the replacement of whole oat porridge with refined wheat bread, and the impact on the health of the Scots, from many years of experience and reflection from his work as a general practitioner in Aberfeldy⁽⁷⁾. Not so very long ago the cereal base of Britain was oats, rye and barley, as well as wheat. The dominance of wheat is a function of mechanisation; refined wheat flour is ideal substrate for mass-produced sliced white bread, whose ‘offals’ – the bran and germ – become animal feed or ‘health’ food. The food culture of Britain has been wrecked.

In most of the world, bread has not been eaten. The staple starchy food in much of Asia is rice, and in many other parts of the world are roots or tubers. In much of Africa the staples are types of porridge. Unless mixed with wheat flour, corn bread is like cake, and it’s a stretch to say that tortillas are a type of bread. Wheat and bread have become universal foods as a result of the economic globalisation of food systems, more to do with the clout of Cargill and General Mills than the preferences of customers and consumers⁽⁸⁾.

Is bread such a good food? The public health nutrition convention since the 1960s has been to recommend less fat, saturated fat, sugar and salt, and more ‘complex carbohydrates’, meaning more of any starchy food. When expert reports designed to prevent chronic diseases are translated into plain language dietary guidelines, in most countries including those where wheat is not a natural crop, bread features prominently.

The usual line, laid down in the 1950s by Robert McCance and Elsie Widdowson⁽⁹⁾, is that while the whole grain contains more nutrients, in terms of public health there is no real difference between white and wholegrain bread. This opinion was reinforced as from 1981 in the UK as a result of a government advisory COMA report⁽¹⁰⁾ stating that all sorts of bread are healthy. (One member of the committee, the redoubtable Jerry Morris, recorded his reservations, saying that wholegrain bread is preferable.)

Our daily sarnie

It is bad science and bad public health to make little distinction between wholegrain and white bread. The first well-known argument against the refined flour from which white bread and innumerable processed foods are made, is that it is depleted not only of dietary fibre but also of essential fats, vitamins and minerals. This is all the more important now that average energy balance of basically sedentary populations is unnaturally low and continuing to drop. Active people whose PAL is say 1.70–1.80 may have room for some degraded food. People whose PAL is say 1.40–1.50 do not.

The second well-known argument is that *Homo sedentarius* does indeed not live by bread alone, or bread

used as a trencher, but bread used as an envelope for fatty, sugary or salty fillings. Nobody eats white bread by itself. Ugh! The energy content of many ready-to-eat sandwiches is awesome. Look at their labels: one double sandwich may weigh in at around 500 calories, or around 30% of the energy requirement of an average size sedentary woman. Burgers are quite a lot less energy-dense than a sandwich spread with margarine plus a fatty filling plus a dollop of mayonnaise.

Bread itself packs a fair old calorific wallop. The new big report on food, nutrition, physical activity and the prevention of cancer⁽¹¹⁾ suggests that foods begin to be energy-dense at around 225–275 calories per 100 grams. Most bread is very close to this range or within it, and once toasted is at the top of the range.

Weight for weight, bread is more energy-dense than most lean meat, and than ice-cream, avocados and fat chips. Boiled rice is around 140 calories per 100 grams, roast potatoes 150, and the porridge that bred the brawny Highlanders is 50 calories per 100 grams made with water, 120 if made with whole milk. So I agree with Walter Willett⁽¹²⁾ in any ‘food pyramid’ white bread does not belong in the staple foods ‘eat more’ bottom layer, but in the junk foods ‘don’t touch the stuff’ top layer.

The Bolivarian diet

There is another reason why not bread, to which I am sensitised because of living in Brazil. Wheat is not a natural crop in tropical countries, and there is no bread-making tradition in Brazil. Shops sell limp, fluffy and sweetened versions of what’s on sale in the USA. Ugh.

Here comes a political bit. One of the themes of the learned book on Hugo Chávez by Richard Gott⁽¹³⁾ is land reform, meaning the right of the people who work the land to own it. Che Guevara when Cuban minister of industry tried to wean Cuba off reliance on sugar⁽¹⁴⁾ in favour of mixed crops, to feed the farmers and the nation. Likewise the Venezuelan national plan for agricultural self-sufficiency and self-reliance includes replacement of products made from wheat imported from the USA, whose heavily subsidised price ruins local farmers, and the identification of rice and corn as the national staple crops. One reason why Hugo Chávez is demonised in the media now dominated by the richest countries, is that he is resisting economic colonialisation.

Most Latin Americans I know see ‘free markets’ as enforced by the USA and European countries, that are themselves ruthlessly protectionist, as a ruse, a repeat of the looting of Asia and Africa by the European imperial powers. There is also a public health nutrition aspect to what Hugo Chávez is doing in the name of national self-sufficiency. Traditional dishes made from rice and corn are not energy-dense. If citizens of the Bolivarian Republic of Venezuela are encouraged to celebrate and consume corn rather than burgers, and rice rather than

bread, they will become more independent, and also more likely to stay in good shape.

Dietetics: toot, toot

Public health nutrition professionals may make a difference for the better if we raise our game. We can start with a campaign to revive the original meaning of 'diet' which as you'll know is 'way of life' or 'way of being'.

This ancient concept as taught by the Greek, Roman and Arab masters gradually narrowed, but for almost all the second millennium CE it 'included a consideration of all what used to be termed the 'non-naturals (air, aliment, exercise and rest, the passions and affections of the mind, wakefulness and sleep, repletion and evacuation)'⁽¹⁵⁾.

In the 19th century the sense of the term narrowed still further, as a result of the aggrandisement of drug-based medicine; this made 'scientific' dietetics a rump discipline concerned with the role of foods and drinks in disease and health. Later, health tended to disappear. Later yet, dietitians tended to become medical ancillaries, trained as specialists in therapeutic diets believed by physicians to be suitable treatment for various diseases.

Inspiration for our campaign is found in the verses of the School of Salerno, the first European medical centre, originally published around 1100 CE. In one of the first printed books, they remained influential until the 'age of enlightenment'. In 1608 they were translated into English by Sir John Harington⁽¹⁶⁾, who invented the flush toilet, and thus transformed the Ajax ('Jakes') into the John. Bet you didn't know that.

General dietetic advice from the School of Salerno includes to rise early and: 'Three things preserve the sight: Grass, Glass, and Fountains,/At Even Springs, at Morning visit mountains'. That should gee up the PALs. And for general well-being, follow the practice enjoined by the Emperor Claudius: 'Great harms have grown, and maladies exceeding,/By keeping in a little blast of wind:/So Cramps and Dropsies, Colics have their breeding,/And Mazèd Brains for want of vent behind'.

If you agree, toot.

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