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Out of the Box

This month this column is guided by two rules. First, that effective sustained protection and improvement of public health always requires the use of law. This is a rule to which significant exceptions have not been identified. Second, that progress in public health requires partnership with, or at least the acquiescence of, relevant industries. This rule has exceptions, but if we think and work as if it is true, we will advance our cause.

Food groups

Forget food and nutrients, think processing

This does not imply that the current policies and practices of the most powerful food, drink, allied and associated industries are likely to improve public health. It does imply an end to the attitude that what's wrong with public health is only or mainly the fault of industry. Simply blaming others won't do. In the words of the R&B number, 'Before you accuse me, take a look at yourself'.

Take how we classify food. More than half a century ago, food became divided into four groups. These were: (i) meat, poultry and fish (for protein and growth), (ii) milk and dairy products (also for protein and growth), (iii) grains, cereal products, potatoes and other foods high in carbohydrates including sugar (for energy) and (iv) fruits and vegetables (for vitamins and minerals).

There is now less emphasis on the need for protein and more on bumping up consumption of starchy foods, plus concern about excess consumption of fat and sugar. Nevertheless, tweaked versions of the original four groups are used in current official UK guides, plus a fifth group of fatty and sugary foods[1]. Current official US groupings also are modifications of the mid-20th century canon: they lead with grains and cereal products, have separate groups for fruits and for vegetables, emphasise low-fat meat, poultry and fish and also low-fat milk and dairy products, and have a separate group for nuts, seeds and legumes (pulses)[2].

What are coco pops?

Now step out of this consensus, developed, promulgated, endorsed and taught all over the world by generations of countless thousands of qualified assiduous people in government, industry, academia and the health and other professions. Step into a supermarket.

How helpful are these food groups? Steak, hot dogs and ready-to-heat products called 'steak-and-kidney pie' are in the same group. Or is the pie a fatty food, or even a cereal product? You would need to get out a magnifying glass and a calculator and examine the ingredients list, to take a view on that. Fresh spinach is a vegetable, that's easy, and so is frozen and canned spinach. But what about ready-to-heat spinach lasagne lashed with white sauce? Is this a vegetable food, or a starchy food, or a fatty food, or a bit of all these? Wholegrain rice is grouped with sugared ready-to-eat breakfast cereals, or are these sugary foods, or confectionery? What about takeaway pizzas? Could these be at least in part vegetables, or meat, or chicken, or fish, or dairy products, or fatty foods, depending on what's spread on them?

Then there are the products that Michael Pollan calls 'edible food-like substances'[3]: extractions and extrusions of refined fats, oils, starches and sugars, often with sprinklings of unrefined or lightly refined foods, sophisticated and constituted into products usually with preservatives and often with cosmetic additives – and increasingly often, synthetic vitamins and minerals. For instance, is a 'power bar' a cereal product, a fatty food, a sugary food, or – if it contains nuts – a nutty food? You have no idea, do you? Nor have I. Tens of thousands of supermarket products can't confidently be placed in any one food group as now promulgated by governments.

The original four food groups were developed at a time when grocers and other food retailers sold fresh foods and simple processed products, most of which can be readily classified in such a way. Groceries also sold cereals, flour, sugar, dried fruit and other basic ingredients for dishes made at home. In those days, when food was in short supply, human energy balance in industrialised countries was 400–600 kcal/d higher than now[4] and populations needed feeding up, the four groups made sense.

Not now. All versions and adaptations of conventional food groups, and their pictorial projections, are part of the public health problem. They are based on primitive thinking on nutrition and public health that was either always wrong, or else was helpful at the time but is now obsolete. They have also been made practically useless by the products of modern food technology.

Time to start again

So toss all the conventional food groups in the trash, together with the pyramids, plates, rainbows and other visual devices derived from them, and start again.

This is what *PHN* associate editor Carlos Monteiro has done in this issue[5]. Carlos, who is editor-in-chief of the leading public health journal *Revista Saúde Publica*, has tracked changes in patterns of food, diet and disease since the mid-1970s, and for a number of years has been

increasingly aware that the conventional classifications of food and drink on which epidemiologists depend obscure the key nutritional drivers of disease risk. His classification is based on one principle: that the issue is not food, nor nutrients, so much as processing. This is an idea whose time has come.

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Food and drink marketing to children (1)

Cola drinks and adolescents. What's the choice?

Coca-Cola and PepsiCo have a policy of not marketing their soft drinks to children under the age of 12. The International Obesity Task Force would prefer to up the age to 16 or 18[1]; and Coke and Pepsi ads of beautiful people seething with fitness, hormones and well-being while necking their products now generally are of older adolescents and young singles. PepsiCo is pushing its products in Brazil, with its slogan '*Beba melhor, viva melhor*' ('Drink better, live better')[2].

Wherever in the world you are, you are surrounded by advertisements for cola drinks. At the resort of Búzios on the Rio de Janeiro littoral, Pepsi has staked out 'clubs' on the Ferradura, Tartaruga and Geribá beaches. We visited the Geribá club, which includes a bar, piped and live music, and in a shady quiet area, supervised painting classes for young children and a massage room. It's very nice. You can drink brands of ice-cold beer, or iced Lipton's tea, Gatorade, no-cal lemon drinks and other PepsiCo products. Fair enough.

The next week at home I saw with some gloom that the empties from a teenage party included three 3-litre plastic Coke™ bottles, whose sugars content altogether weighed in at just over 7500 kcal. Here is an idea for a research project. Measure the waists of a sample of young people who consume cola drinks, and compare this with the actual or estimated waist measurements of the young people whose photographs advertise the products.

But it could be worse

However, once again I invoke the Leapman Principle, which is: it is not what you do, so much as what you would be doing were you not doing what you do. Here this means that sure, we agree that cola drinks are a Bad Thing, and their manufacturers don't pretend they are healthy. But the real question, thinking of young people in party mood and given that cola drinks deliver a buzz from the sugar and maybe their Secret Ingredients, do you think they are so bad that alternatives such as alcopops, wine or vodka, or substances off the nutritional map such as tobacco, ecstasy or crack cocaine, are better? We may disagree on the answers but the questions need to be asked. (Yes, consumption of Coke™ does not preclude consumption of other real things, if you see what I mean.)

For adolescents in party mood it is good practice to provide and promote safe water and also tea, coffee and fruit juices, without demonising fizzy sugared flavoured water. Vending them in schools is, however, a whole different can of 'nature-identical' chemicals. The right line here is the tough line: ban vending machines from schools. In general, withdrawal of all agricultural support and other systems that make cola drink ingredients artificially cheap[3], plus taxes that make all sugared soft drinks cost manufacturers the same as 100 % fruit juices, is the way forward. The revenue can be dedicated to funding the restoration of physical training and of free nourishing meals in schools. Who could possibly object to that?

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Food and drink marketing to children (2)

Food as fantasy. There ought to be a law

Nestlé's 'radical' breakfast 'cereal' Nescau™ is promoted in Brazil and doubtless throughout the world in association with *Madagascar 2*, the Dreamworks™ multi-media fantasy for children. The packets are in effect joint promotions, and included 'free' inside are models of one of the four characters such as Gloria the hippo and Alex the lion, which in smaller print on the package are 'suitable for children above 18 months'. Nescau in this form uses the same type of technology that generates chow for pets. It looks like goat droppings. It contains wheat germ and bran as well as starch, with various added synthetic vitamins and minerals. A recommended serving of 30 grams delivers 12 grams of sugar, around 40 % of the

total calories. Gabriel our 4-year-old pesters us to buy Madagascar, as he calls it, and he plays with the models as he eats his chow for kids.

This is not a story against Nestlé. In Brazil, and doubtless throughout the world, McDonald's outlets also stock super-hero and such-like fantasy toys. For instance, if recently you wanted to collect the set of characters from *Tak é a Magia de Juju* (Tak and Juju Magic), the Viacom™ multi-media fantasy, you had to go to a branch of *McLanche Feliz*™ (Happy McLunch) and buy a 'meal' likely to be a burger, fries and soft drink, in order to be given 'free' Tlalok, Dead Juju, Belly Juju and all the rest including Tak himself, a masked boy originally inspired by Batman's Robin, as is another kid's super-hero fantasy Ben 10™. Or you can skip the food and instead for the same price buy one character, only available at Happy McLunch. But I guess that most parents order as many lunches as there are adults and children in the party. Clever stuff. When we travel, as soon as Gabriel spots happy McDonald's golden arch signs in the distance, he says he is hungry or needs to pee, and if denied gets frantic. The system works. He is hooked.

This is not a story against McDonald's. Think back. Put yourself in the place of a senior executive of a transnational food company with products formulated for and marketed to young children. Suppose in a strategy meeting one of your colleagues reported that a competitor is about to market lead products in exclusive association with super-hero and such-like multi-media children's fantasies created and owned by an entertainment transnational, and that this new partnership was going to generate massive synergy. Would you recommend to the CEO that your company joins the game? Of course you would! You would have no real choice.

Civil society organisations concerned with public health who have earned a reputation for being 'anti-industry' are mistaken in such an attitude, for a number of reasons. One is that the issue is not industry, but that sector of industry whose products are harmful to public health. Two is that when regulation is inadequate, absent or against the public interest, the responsible actor is not industry but government, and governments may act only when pressed by citizens and also by relevant qualified professionals – which means you.

The point becomes evident by analogy. When I was a boy, cigarettes were available in packets of 5, and newsagents sold cigarettes singly. This pushed children to smoke, as did the cards of sets of football and other sporting heroes inserted in cigarette packets. So in Britain at least, all this was stopped, by pressure from government on the cigarette industry, and also by law.

Another example is sport. Fair competition between Formula 1 cars, and protection of drivers and of spectators, is ensured by laws of the sport, partly as a result of pressure from the drivers themselves, who were sickened by being seen as gladiators. Football was made more interesting when the points for a win were raised to 3, which discourages playing for draws. The specification of javelins was changed when regulators realised that one day a wild throw might impale a spectator.

Usually though, laws that define and restrict types of cars, guns, drugs, smokes, drinks, dogs, and so on, are imposed by government, in the interests of public health and safety. Partnerships between transnational food and entertainment companies that induce young children to crave ultra-processed foods and drinks are surely wrong. The practice can be stopped only by the use of international law.

There are a number of possibilities, some of which have traction with some governments[1,2]. One is that all forms of marketing of processed foods and drinks to children be prohibited. This will require 'processed foods and drinks' and 'children' to be defined. Two is that any processed food or drink with more than a specified percentage of its dietary energy in the form of sugars or syrups be classified as confectionery, and labelled as such. Three is that licenses to operate premises in which food and drink is consumed are restricted to the sale of food and drink. Such laws will help to make a level playing field and a better game. Who could possibly object to that?

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