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British Food Journal

Obesity, convenience and “phood”

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Obesity, convenience and “phood”

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Abstract

Purpose – With rising levels of obesity, public health attention has turned to the “obesogenic environment”, which includes the ready availability of convenience foods. We seek to provide an historical account of the popularity of convenience foods, alongside an elaboration of how international and Australian experts believe convenience food has contributed to rising rates of obesity. In this context, the paper aims to speculate about the likely success of functional foods, or “phoods”, and draw conclusions about potential implications for the obesity epidemic.

Design/methodology/approach – An “expanded” Delphi survey was utilised to identify key trends underpinning the rise in obesity and expert’s hypotheses about how these trends have operated to promote obesity. Elaborating on these data, an historical perspective of the emergence and consolidation of convenience foods in Australian diets, with particular attention paid to foods that offer “healthy convenience”, is provided.

Findings – Australian research shows how the growing consumption of convenience foods is contributing to upward trends in overweight. It is argued that the functional food sector is well placed in a context where consumers are being encouraged to embrace convenient food solutions, while also being concerned about the nutritional qualities of foods.

Originality/value – Whilst the development of healthy and convenient “phoods” may benefit people’s health, the paper identifies how they may also undermine efforts to reduce the weight of the population. This makes the regulatory issue of health claims pivotal to balance the interests of the functional food sector and the public health community.

Keywords Obesity, Convenience foods, Public health

Paper type Research paper

Introduction

Australians are among the most overweight and obese populations in the developed world: in 1999/2000, the prevalence of overweight and obesity in both sexes was almost 60 per cent, defined by both BMI and waist circumference, a 2.5 fold increase over the past two decades (Cameron *et al.*, 2003). Australia is not alone, with increasing prevalence of overweight being endemic in the majority of affluent nations (Joint WHO/FAO Expert Consultation, 2003). Overweight and obesity are regarded as an alarming and major health issue, especially given the known links to a wide range of chronic conditions, importantly including cardiovascular disease, type 2 diabetes, musculoskeletal problems and cancer (Mathers *et al.*, 1999), as well as the negative psychological and social consequences for people who are overweight and obese in a society that values thinness.

Most research studies – whether conducted from within biomedicine or social epidemiology – conclude that the rising rates of obesity are the result of numerous and diverse interactions between biological, behavioural and environmental factors (Turrell, 1996; Cameron *et al.*, 2003). While many researchers concentrate their efforts on finding the biological and genetic bases for obesity, and are working with pharmaceutical companies to develop weight reduction drugs, an increasing number of



social scientists are focussing on what is termed the obesogenic environment. This is an environment "in which the surroundings, opportunities and conditions of life promote obesity in individuals and populations" (Swinburn *et al.*, 1999). This paper focuses on an important feature of the obesogenic environment: The availability of convenience foods, including those promoted as offering health benefits.

Convenience foods and public health

In 2003, the WHO/FAO released an expert consultation *Diet, Nutrition and the Prevention of Chronic Diseases* which reported that there was "convincing evidence" that weight gain is associated with a high intake of energy-dense, micronutrient-poor foods. The experts also found "probable evidence" linking weight gain to:

- heavy marketing of energy-dense foods and fast food outlets; and
- high intake of sugars-sweetened soft drinks and fruit juices.

This finding led sugar and processed food industries worldwide to protest to their governments about the quality of the evidence used by the experts (Chopra and Darnton-Hill, 2004; Jain, 2004). There was further "possible evidence" of weight gain being caused by:

- large portion sizes;
- high proportion of food prepared outside the home; and
- rigid restraint/periodic disinhibition of eating (Joint WHO/FAO Expert Consultation, 2003).

In our own research on the social trends that are contributing to rapid rises in obesity, 50 Australian experts were consulted using a Delphi technique to generate consensus. The experts were drawn from the fields of nutrition, physical exercise, public health, public policy and marketing and they were employed by government, non-government, academic and commercial organisations. Among their nominations of the top six social trends fuelling changes in food consumption were "rising use of convenience and pre-prepared food", "aggressive food marketing" and "growing availability of, and access to, food". One of the experts commented, "we inhabit a food rich environment" (Banwell *et al.*, 2005). Their descriptions of convenience foods led us to define the category as "the domestic outsourcing of food planning, preparation and/or cooking", and this is the definition that we adopt in this paper.

The experts suggested some hypotheses as to why convenience foods are related to obesity:

- loss of intuitive understanding of what is in the foods we eat (e.g. yoghurt can be low carb and high fat or high carb and low fat), thereby limiting people's capacity and confidence in assessing marketing information and making informed, sensible food choices;
- reduced physical activity in food preparation;
- loss of skills in relation to planning food, deciding what to eat, and hence being susceptible to messages about what is easy and tastes good; and
- handing over control to companies, which make decisions about ingredients and serving sizes.

There is indeed evidence to show that convenience foods are a super-efficient system for delivering calories, and this happens in numerous ways: their calorie density, the super-sizing of portions, the speed with which they are consumed, the frequency of their consumption through grazing or snacking (Rozin *et al.*, 2003). Hand-size portions able to be consumed on the move – whether walking down the street, bicycle riding and car driving – make round-the-clock consumption entirely feasible. More specifically, convenience foods are being used as an alternative to home cooking, and a departure from home cooking is characterised by:

- hidden fats, sugars and salt;
- flexible/round the clock-grazing, instead of a routinised meal pattern – consuming ten mini-meals per day instead of two or three meals;
- seduction of the novel, leading to unregulated consumption of new foods instead of familiar foods;
- individual consumption routines (at the desk, in the car, in the café) leading to disinhibited eating, especially if consuming food in private spaces where social norms do not intrude; and
- instead of using food as a vehicle for sociability and to sate hunger, food is being used for individual status and emotional reasons.

In short, modern convenience foods have encouraged diets to become disembedded from social conventions, times and places. The socially-regulated food consumer of the past has become a self-regulating omnivore, whose tastes are shaped by the market, rather than community-based norms. Before the past is overly romanticised, however, it is important to note that today's market penetration of consumption activities builds on a long tradition of citizens using commercial providers to feed themselves.

Potted history of convenience foods

According to the food historian Fernandez-Armesto (2001), convenience foods, prepared by small artisans, were born on the streets of European cities in the middle ages. Their popularity was consolidated by commercial kitchens, including pubs and cafes, used to feed large numbers drawn into factories of the industrial revolution. Convenience food was further reproduced in the nineteenth century by charitable kitchens which fed the poor.

This history is only partial, however, because it ignores "street foods", found the world over; and which, in Asia and the USA, extend back many centuries. Taylor *et al.* (2000) document the fluctuating fortunes of street vendors in New York as far back as 1691. They describe how "hucksters" have endured regulatory scrutiny for over 300 years in the city made famous by its multi-cultural street offerings of Italian sausage sandwiches, Mexican burritos, middle east falafels and Chinese egg rolls. They remind readers how some stand-alone vendors have incubated the success of franchised restaurant chains, noting that McDonalds began as a single hamburger stand in Pasadena, California in 1940. Their current appeal in the American context is that they provide "ready-to-eat and fairly inexpensive snacks and meals for a wide variety of people", not just for the poor (Taylor *et al.*, 2000, p. 41).

While it is not possible to generalise the extent of, and reasons for, the proliferation of street foods across Asia in the last 60 years, it is possible to identify some principles

for their spread. According to Bhat and Waghray (2000), street foods are more common in places where: households do not have kitchens; women are working but remain responsible for providing traditional meals consisting of numerous dishes; men have moved into cities for work without their wives; the informal economy is strong and skills are low, because selling such goods offers relatively good incomes especially for women; festivals, fairs and special events are held. These researchers reported that street food availability was generally growing and that "convenience/availability" was an important reason for choosing street foods, alongside taste and low cost.

Convenience foods also have a long history in Australia. As a colony of Britain we enthusiastically adopted the sandwich, possibly the first portable food. Named after the Earl of Sandwich in the late 1700s, the sandwich consists of two pieces of bread around filling, to be carried around in the hand. The nation's fondness of another European invention, the meat pie, is legendary; although its own invention of a cross between the spring roll and meat pie, "The Chiko Roll", is not so familiar. Local food historian Symons (1982) has concluded that Australia has always been a nation of industrial eaters because there was no peasantry willing and able to work the land. Australians traditionally have relied upon the output of large primary producers for meat augmented by smaller scale vegetable growers and processed foods produced by the world's biggest food processors: Heinz, Kellogg, Nestle. Only after World War II, followed by the 1970s demise of the White Australia Policy, did large numbers of "peasants" from Europe and Asia arrive in sufficient numbers, set up market gardens and use their craft skills to produce small goods and other ingredients for themselves and others. In addition to providing produce for home cooks, they brought with them some very convenient dishes, including pizza, kebabs, Asian "spring rolls" and fried samosas.

Other social histories show that convenience foods are not simply the result of commercial operators doing the processing work for housewives. For much of the twentieth century Australia had a food home delivery system that was the pinnacle of convenience. First, grocers' boys used to deliver the weekly food order by bicycle. With the arrival of automated transport, small producers and vendors meandered suburban streets selling milk, bread and vegetables from the back of small trucks. With the multiplication of supermarket and convenience stores in the 1960s, due in part to the enthusiastic adoption of private automobiles, shopping was transformed into a commercialised self-help activity, making food provisioning an onerous activity (Kingston, 1994; Humphery, 1998; Dixon, 2002). Only recently have supermarkets reverted to home deliveries, linked to online shopping, for those affluent two wage earner couples too busy to physically present themselves at the shopping mall.

Indeed the food service sector is the most rapidly growing sector of the Australian food system, making convenience foods all the more accessible. The points of exchange have multiplied: fast food chains, supermarkets, cafes, cuisine couriers, vending machines and petrol stations. Fast food chains have become an increasingly predominant source of convenience food. Between 1987 and 1995, the growth in number of outlets was 11.5 per cent per year (BIS Shrapnel, 1995), and together with other sources of convenience food – cafes, restaurants and hotels – accounted for one quarter of total turnover in the food and liquor retail industry (Agriculture, Fisheries and Forestry Australia, 2002). The transformation of petrol stations into convenience stores can be traced back to the 1970s oil shortages. Those stores that were stocked

with basic grocery items and promoting themselves as one-stop shops survived, whereas other did not. Since then, firms like BP have diversified its retail form with BP express stores offering a mini-supermarket with hot foods, banking and other services.

Convenience foods have always been interlinked with economic transitions, and urbanization and women's labour force participation are arguably the two most fundamental trends behind their current popularity (Goodman and Redclift, 1991). They are proliferating in cosmopolitan centres via sidewalk cafes, bistros and hole-in-the wall outlets; and today they come in many forms: from the humble meat pie to gourmet heat and serve dishes, delivered by firms marketing themselves as "cuisine courier" (Banwell *et al.*, 2006).

Because convenience foods have such a rich history, their cultural meanings are multiple and layered, being passed down through the generations. The way we think about convenience has evolved, beginning with "saving trouble": a value that was attached to labour saving devices such as the washing machine, car and refrigerator. With the growing perceptions of "time famines" from the 1980s onwards (Gofton, 1990), convenience foods were advertised as "quick and easy". More recently, they have been promoted as enabling lifestyles to be unencumbered by meal times, thus allowing time to be rescheduled and spent on other priorities. Studies conducted by ourselves (Dixon and Banwell, 2004a, b) and others (Goodman and Redclift, 1991; Shove, 2003) show that convenience foods are accepted because they are perceived to offer solutions to the organisation of everyday life. In the early part of the twentieth century, convenience was about comfort, now it is about the reordering of time; or as Warde *et al.* (1998) would have it: convenience "relaxes the constraints upon an individual's trajectory through time and space".

However, convenience is not simply about liberation from constraints. In *Comfort, Cleanliness and Convenience*, Shove (2003) argues that it is driven by "the ambition of maintaining standards in the context of an increasingly fragmented temporal environment". These standards include feeding the family nutritious meals, even at the end of a day of paid employment. Shove's understanding of convenience resonates with the number one trend identified by our experts for shaping changing food consumption, "busyness" (Banwell *et al.*, 2005). A pervasive sense of busyness, coupled with a desire to maintain relatively demanding household standards and the more recent promise of medical science to help us live more healthily, encourages an appreciation for the category of goods called "healthy convenience".

Healthy convenience and functional foods

The "food-rich environment", referred to earlier, has both material and cultural dimensions. On a material level, the mean intake of energy increased by up to 10 per cent across all age groups in Australia between 1985 and 1995 (Cook *et al.*, 2001). This energy increase was attributed to a 20 per cent increase in total carbohydrate and a 20 per cent increase in total sugar intake brought about the growth of consumption of confectionary, cereal-based foods, "health" bars and soft drinks. These energy-dense foods comprise a significant proportion of the convenience foods category.

Their consumption coincides, however, with what is termed the nutritionalisation of the food supply, a situation in which the nutritional qualities of food displace the importance of other qualities like taste, price, tradition, local origin. Thus, typical convenience foods challenge the widespread obsessions with healthy bodies and

slimness. Shove (2003, p. 179) explains the trade-off between a desire for attributes such as health and convenience in the following terms: "While convenient solutions 'create' time for valued purposes the risk is that they do so at an unacceptable cost to other equally important concepts of care and proper performance."

As cultural standards multiply about what constitutes a "balanced diet", the extent of gastro-anomy, or the absence of rules to guide dietary choices, deepens:

The anomy may appear to provide a certain degree of freedom to contemporary eaters; yet they are constantly anxious to make correct decisions, and this fear in turn provides an ideal setting for unfavourable eating conditions (Poulain, 2002, p. 53).

The anomic food environment is further reproduced by companies deliberately setting out to confuse consumers, according to Nestle (2002). This then sets up the conditions for the heightened role of experts, especially nutritional experts (Dixon and Banwell, 2004a, b).

The valuing of nutrition knows few bounds, and this is the context in which more companies are investing large sums in research and development of health promoting foods, or "functional foods". According to the World Health Organisation (WHO) (2004, p. 5), there "is no internationally agreed definition of functional food, and most countries have no legal definition". What is agreed is that these foods "claim to have a health effect *over and above* that expected from a normal balanced diet" (World Health Organization, 2004, p. 5).

Functional foods are the result of adding nutraceuticals or a bioactive ingredient to deliver health benefits, and the term was first used in Japan in the 1980s in the context of the launch of Fibe Mini – a dietary fibre drink introduced by Otsuka Pharmaceutical (Heasman and Mellentin, 2001, p. 136). While the term had not been coined, the earliest functional foods are much older and range from iodised salt to prevent thyroid conditions, thiamine-enriched bread and beer to counteract iron depletion, and fluoridated water to prevent dental caries. More recently, folate has been added to cereals and bread to protect the unborn against spina bifida; energy boosted drinks like Gatorade are used by elite sportspeople and others to recover from exertion; margarines have plant sterols to lower cholesterol; and Nestle's LCI Yoghurt is used to boost the immune system. As one columnist put it, "Some of Nestle's advertisements sounded more like promotions for a medicine than yoghurt" (Ball, 2004, p. 58). As many of these foods are the joint output of pharmaceutical and food companies, some refer to them as "phoods".

In a series of press releases in 2004, Fonterra Foods (NZ) openly canvassed its future thinking. In one, the director of marketing and innovation was quoted:

... while being able to dial up food in the way you want sounds the stuff of science fiction, this heralds the next era in food technology. Consumers will be able to receive a healthy, nutritious snack with a specified nutritional benefit and the convenience of instant vending ... There is increasing consumer demand for foods that not only taste great, but are nutritious and actually improve health and well-being.

This was said in the context of the company launch of POSIFoods, or point-of-sale individualised foods: a joint venture between the dairy processor and BASF, "the world's leading chemical company and leading manufacturer of products for human nutrition" with support from Massey University's Riddet Centre (Fonterra News, 2004a, b).

From a more recent Australian news item, The University of Melbourne claimed that it had been using industrially produced flavanol compounds, sourced from

a US-based biotech company, to mimic the flavonols found in the skins of fruit and vegetables, and in wine and tea. The article began: "Imagine if the life sustaining secrets of the Mediterranean diet could be encoded in a new range of drugs" (Lane, 2005, p. 37).

In *The Functional Foods Revolution*, Heasman and Mellentin (2001) argue that people are being encouraged to think about and consume food in a totally new way, that is, to repair or prevent disease. The impetus for phoods is threefold:

- (1) the developed world's obsession with the absence of disease, longevity and added performance (Lawrence and Germov, 2004);
- (2) the developing world's desire to curb diseases caused by micro-nutrient deficiencies (Asia Development Bank, 2000); and
- (3) food companies' drive for competitive advantage (Nestle, 2002).

These three drivers operate within a context of consumer desire for not only convenience but also healthy convenience. Focus group research confirms that mothers and housewives seek out easy-to-prepare foods that are healthy (Australian Expert Group in Industry Studies, 2001; Dixon, 2002). Healthy convenience embraces a commodified short-cut to health.

In the past, foods had ingredients taken out of them (for example, fat), and subsequently were promoted as the answer to obesity and its associated diseases such as cardiovascular disease. Now companies add ingredients to achieve the same result. One notable example is Multi-Bene, a combination of natural plant sterols that can be incorporated in bread, hamburgers, and margarine. It is promoted by its Finnish parent company as having 52 health claims: Lowering elevated serum cholesterol, lowered BP, decrease in obesity, and improvement of glucose metabolism/insulin sensitivity. Together these conditions contribute to metabolic syndrome or Syndrome X (Heasman and Mellentin, 2001, p. 195). With diet-related diseases being present in 50-60 per cent of westernised populations (Cordain *et al.*, 2005), Multi-Bene has a potentially vast and receptive audience.

Heasman and Mellentin (2001, p. 33) argue that functional foods represent an essentially new direction in food, nutrition and health science and food marketing:

Using people's fears . . . about their health and possible future disease risk . . . as a basis for development . . . and marketing . . . is fundamentally different from how traditional foodstuffs are marketed and sold.

In other words, foods come with greater promise: they will fix damage as well as prevent it; they will enhance what one has been endowed with; and indeed some will allow one to eat as much as possible without adding any weight (for example, olestra enhanced potato chips). The ingredient suppliers for these foods are among the world's largest food and pharmaceutical companies: Nestle, Kellogg, Unilever, ConAgra, Monsanto, Dupont and Novartis. Nestle employs 500 nutrition researchers to work on its portfolio of nutritionally enhanced products, and prices on phoods can be 40 per cent higher than ordinary versions, with double profit margins (cholesterol reducing margarines are up to six times as much as other margarine) (Ball, 2004).

With the escalation in obesity prevalence, Unilever has announced a partnership with British botanical firm Phytopharm to produce slimming foods and drinks containing an extract from a rare South African cactus. Traditionally used by

bushmen to suppress hunger when food is limited, the companies believe that the hoodia plant will help people surrounded by food abundance to lose weight. Market analysts have predicted annual sales of between \$600m and \$2bn (Tomlinson, 2005, p. 27).

Phoods mean that people consume more in the present so that past and future acts of consumption are nullified or made risk-free. As Ball (2004) notes, food companies are aware most premature mortality is associated with diet-related diseases. So finding foods to combat these diseases is high on their agenda. In 2003, there was some excitement and controversy about the discovery of the polypill to protect against heart disease by acting on six pharmacological contributors (Wald and Law, 2003). Rather than seek out a diet rich in biodiversity, consumers were encouraged to buy a single item promoted as providing the evidence-based protective agents.

Another team of public health researchers countered with evidence of the efficacy of the polymeal, or foods from seven different food groups, as the safer, non-pharmacological and tastier alternative (Franco *et al.*, 2004). In the *British Medical Journal* evidence was presented that the ingredients most useful for reducing the risk of cardiovascular disease and for increasing life expectancy were: wine, chocolate, fish, fruit and vegetables, garlic and almonds. The researchers concluded that "[f]inding happiness in a frugal, active lifestyle can spare us a future of pills and hypochondria" (Franco *et al.*, 2004).

Whilst the provision of edible and tasty phoods that prevent, treat, and indeed cure, disease are promised to be beneficial to the population's health, this is unlikely to be the case because the problems associated with growing consumption of unhealthy convenience and pre-prepared foods remain. Phoods will never wholly replace foods in the marketplace and, therefore, consumers are still required to make increasingly expert consumption choices amongst proliferating options. In this way, phoods can only further contribute to dwindling mainstream consumer knowledge and confidence about food and nutrition. Moreover, people's capacity to manage their hunger, choose healthy foods and regulate their food intake is unlikely to improve with the further symbolic detachment of the concepts of nutrition, health and even social relationships from food purchasing, preparation practices and meal routines. If one accepts that individuals should take responsibility for their weight, then phood that can minimise weight gain is one approach, alongside stomach stapling and dieting. If, however, the belief is that the health implications of having an overweight population can be addressed only through public measures, then governments will regulate the obesogenic environment much as they have regulated the smoking environment (Jain, 2004). This means acting in the interest of the whole population's health when making decisions regarding the market regulation of functional foods.

Implications for food and nutrition regulation

The potential economic gains from functional foods are today uncertain, and depend largely on the legislation and guidelines that will constrain the health claims marketing that is necessary to popularise these products and make them acceptable and appealing. At present it is unclear how the regulatory issues will be managed and administered in Australia and in other countries with which Australia has free trade agreements, like the USA and Thailand. In 1996, due to disagreements from members on the relevant sub-committee, the international food regulatory body,

Codex Alimentarius Commission, included only the most limited of health claims in its draft guidelines for use of nutrition claims (World Health Organization, 2004).

In Australia and NZ, the primary regulatory authority Food Standards Australia New Zealand and the Food Regulation Standing Committee have been locked in debate with the public health community and the food and grocery manufacturers peak bodies about deregulating the policy architecture that has underpinned both countries' food systems for three decades (World Health Organization, 2004, pp. 30-1). Health claims are a particular sticking point. At present, however, neither country permits claims that refer to diseases, unlike the USA where specified disease risk reduction claims are permitted (once food companies present evidence of a health benefit), and Thailand where nutrient function and other function claims are permitted. Again, there are differences between the countries in relation to what claims are permitted in advertising.

According to Fernando-Armesto (2001), convenience foods have always required promotion: even if this amounted to a simple sign announcing their availability. A range of third commercial parties – whether an advertiser, food company or retail trader – have long played a role in making these foods more accessible and acceptable. And the freedom to advertise and promote functional foods is a major issue for those who produce them and sell them.

In a context of consumer confusion and cynicism about what constitutes healthy foods, consumers are seeking guidance from traditional authorities especially government. The coalition for a healthy Australian food supply, made up of high profile individuals from the consumer, nutrition and public health sectors, argued in its briefing paper, "Imminent public health threats to the food supply", that:

... liberal fortification regulations could distort consumers' understanding of what healthy food is, and drive consumption towards a more highly processed, less healthy diet, contributing to the epidemic of overweight and obesity and concomitant risk of chronic diseases (CHAFS, 2003, p. 1).

For these reasons, the coalition and others caution against further medicalisation of the food supply (Lawrence and Germov, 2004); and they argue that governments have a crucial role in regulating health claims and the provision of nutrition education. They also highlight how health claims regulation is interrelated with guidelines for food advertisers; the setting of dietary guidelines; and the trade in food and food ingredients.

Conclusion

Convenience foods offer solutions to the organisation of everyday life, but they are increasingly being implicated in weight gain. While unhealthy but convenient meals, produced by some of the most reputable and profitable corporations have, according to the WHO and the Food and Agriculture Organisation, contributed to global rises in population weight, the same firms are promoting healthy convenience, via functional foods, to combat obesity and improve health more generally. Although these products seem to offer solutions, they are just as likely to exacerbate existing health problems. A technological fix is being advanced for a problem that originates in a complex array of social trends. At present, the potential economic gains from functional foods are uncertain. Whilst phoods are just the latest innovation in a sustained trend towards

convenience, we believe the issue of functional foods offers governments and the public an impetus to curb the known pitfalls of convenience. Furthermore; the regulatory pressures to permit functional foods provides governments with an opportunity to assist the public to become more confident, well-informed and healthy eaters.

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