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STANDING COMMITTEE ON HEALTH AND AGEING

INQUIRY INTO OBESITY IN AUSTRALIA

Submission from the National Centre for Epidemiology and Population Health, Australian National University

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Submission Summary

1. A powerful cultural transition, or *cultural disturbance,* is contributing to the recent and rapid rise in obesity in Australia.

2. Cultural transitions encourage changes to ways of thinking about, and 'practising', daily living: including physical activity and diets.

3. The contemporary transition involves the convergence of four factors: time pressure; the valuing of convenient solutions to eating; the valuing of convenient solutions to being mobile; and for parents, pressure to practice child-centred rearing. The four are closely interlinked and are mutually reinforcing.

4. Household valuing of convenient solutions – particularly car reliance and eating foods prepared outside the home – escalated from the early 1980s and coincided with policies to deregulate the economy. They were viewed as 'solutions' because they facilitated flexible working lives by allowing more flexible routines.

5. The new forms of daily life are best understood as an adaptation to economic deregulation. They help to resolve tensions in managing working-family life dynamics and being a modern parent and consumer.

5. We argue that the rise in obesity across society is a warning sign against which the progress of the Australian government should be judged; and we call on the government to take cultural forces as seriously as it does structural economic forces.

6. Specifically, government-inspired effort, in partnership with all sectors, is required to encourage debate about the societal management of time pressure, the unintended consequences of holding convenience in such high regard, and the styles of parenting that might protect children against weight gain. In particular, we argue a case for a re-orientation of Australian society that takes time poverty as seriously as financial poverty, and re-values household food preparation and more active forms of transport.

Submission from the National Centre for Epidemiology and Population Health, The Australian National University

1. Background to the Submission

We write as researchers in population health who are currently undertaking funded research into the social sources of the secular rise in the prevalence of population obesity. We are confident that the Committee has access to detailed information on prevalence rates of obesity which we do not repeat here. Additionally, we do not cover what we are sure other submissions will describe, namely health-promotion approaches to the management of excess weight and medical perspectives on weight loss.

Our focus is on the long historic social trends underlying the changes in weight in the population during the last 50 years. We suggest that equally broad socio-cultural changes are required to prevent weight gain among future generations and today's children and young people. The broad trends have been indentified by our research with experts in diet and physical activity (Banwell, Hinde, Dixon & Sibthorpe 2005), and have been explored more fully in our book *The Seven Deadly Sins of Obesity: how the modern world is making us fat* (Dixon and Broom 2007).

In this submission, we concentrate on four of the seven identified trends: rising time pressure, car reliance, reliance on convenience foods, and child-centred rearing practices. The four are closely interlinked and are strongly mutually reinforcing.

They each form part of what has been termed the 'obesogenic' environment (Swinburn, Egger, & Raza 1999) in which maintaining healthy weight has ceased to be a by-product of everyday life, and instead has become a personal project requiring constant vigilance and resistance to widespread cultural and social patterns.

2. Our Focus: Addressing the Cultural Determinants of Obesity

In the mid 1800s, Rudolf Virchow – doctor, statesman and anthropologist – proclaimed disease to be a "disturbance of culture". He argued that epidemics are warning signs against which the progress of states can be judged.

Since the 1980s, the disturbance to the Australian culture has been profound and rapid. In particular Australians have experienced a deregulated economic system. This system introduced a variety of working conditions and household routines; the latter often instigated to accommodate the spread of hours and tasks demanded of the flexibilised economy. A deregulated economy – promoted as unleashing resources and talents previously locked away by regulations and customs - has delivered significant innovation in firms, products and services. The entrepreneurial spirit has created myriad production and consumption possibilities. Indeed, a more

flexible cultural system is a necessary adaptation to a flexible economic system, and there is no denying that together they open up choices and opportunities.

However, the choice-saturated system is beginning to show strain and citizens are telling market researchers that they have surpassed their choice/opportunity comfort zone. In one response, the original purveyors of abundant choice – the supermarkets – are now positioning themselves as 'choice editors' and are scaling back their 40000 plus offerings as customers return to small food retailers where the shopping experience appears more manageable.

In *The Seven Deadly Sins of Obesity*, we use Australian epidemiologic data to reveal changes over time to the social gradients in obesity and we report on the current gendered nature of those gradients. While the female gradient is closely linked to socio-economic status, the male gradient is not (Friel and Broom 2007). The temporal and gendered nature of the obesity gradients highlights that individual and population-wide economic factors can explain only part of the story, and that cultural factors (sometimes referred to as period factors) make a contribution (see Allman-Farinelli et al. 2006). Other researchers have been more explicit in linking the obesity epidemic to fundamental shifts within the culture of modernising nations (Lang and Rayner 2007; Ulijazsek 2006).

Two particular innovations are implicated in the disturbed culture: the increasing marketing, availability and acceptability of convenience foods (Chou et al. 2004; Cutler et al. 2003; Ulijazsek 2006), and the marketing, availability and acceptability of convenient forms of mobility in the form of the privately owned automobile (Freund and Martin 1996; Hinde and Dixon 2005; Banwell et al. 2006).

If cultural forces have contributed to the rise in obesity, then it follows that cultural forces need to be unleashed to counteract its present trajectory. We conclude *The Seven Deadly Sins of Obesity* by reporting on previous public health successes that involved cultural shifts beginning prior to government intervention. For instance, folk knowledge and personal observations of the harms of tobacco use drove considerable opposition within Australia to the spread of smoking, long before doctors and epidemiologists developed a consistent view. Similarly, wives and mothers used the emerging medical science about high fat diets and heart disease, contained in popular media accounts, to shift household consumption away from saturated fats to poly- and mono-unsaturated fats. This community initiated activity preceded the uptake of cholesterol lowing drugs, medicine's 1970s 'silver bullet' (see also Powles 2001).

However, the claim and counter-claim from medical scientists about obesity has become so shrill in recent times that we question whether the community is able to respond in a similar manner. Moreover, the cultural transformations that have underpinned the rise in obesity involve the most mundane and fundamental aspects of daily life: people's experience of time, the food they eat, and how they move around and raise their children. Practical, economic and symbolic guidance is therefore required to design and facilitate shifts to healthier modes of living.

3. Four Interlinked Cultural Determinants of Obesity

3.1 Time Pressure

Time pressure is expressed in longer hours at work, work intensification, increased difficulty maintaining a balance between work and family time, longer distances travelled to work and shop, and a 'speeding up' of many activities of daily living (including transportation and meal preparation). With both parents in the labour force, the time a household invests in paid work has increased to approximately 70 hours per week, compared to the immediate post-war single-earner family where the husband/father might have spent 40-45 hours at work (Strazdins & Loughrey 2007).

Time pressure and long commute distances limit opportunities for in-home food preparation and fosters reliance on pre-prepared energy-dense foods, which are considered a likely contributor to the obesity epidemic (Joint WHO/FAO Expert Consultation 2003; Cook et al. 2001). ABS Time Use data show that between 1986 and 1997 Australians spent an average of 3 hours less a week preparing and cleaning up after meals (Baxter 2002). More recent data reveal that time spent on purchasing goods and services (the main category being food) increased between 1992 and 2006, while daily domestic activities (a main item being food preparation) has declined (ABS 2008). In short, Australian households are shifting time towards the more potentially obesogenic behaviour of buying pre-prepared foods.

Time pressure also leaves both adults and children with a sense that they cannot afford the time required for active transport to work and school, diminishing the opportunities for incidental physical activity. Our research shows that minimising time costs is a central concern for people when selecting a mode of transport. The automobile is widely valued for its efficiency whereas active modes of transport such as cycling and walking are regarded as leisurely (Hinde 2008).

While the experience of time pressure, the scarcity of time and hence its value, vary among sub-populations and according to life-stage, work demands and life roles, there is little doubt that these experiences influence food choices and modes of physical activity (Jabs and Devine 2006; Devine et al. 2003). For 'working families', time pressure is a response to two particular factors: high levels of labour force participation by all adult household members and the rigours of modern styles of parenting; which together leave little capacity for 'inconvenient' solutions. For single person households, including those not in the labour force, feelings of time pressure can come from the highly constrained decision-making involved in all of the commodity and activity choices which are heavily marketed in an affluent society. Ironically, the salience of time pressure is possibly greater for those with higher levels of exposure (temporally and spatially) to the market: watching television, reading advertising-based magazines, recreating in shopping malls and driving around suburban streets with numerous fast food outlets (Burns et al 2006).

3.2 Reliance on individual cars

Australia's urban transport is dominated by the automobile (Mees 2000; Laird et al 2001; Hinde and Dixon 2005). The rates of car ownership and use in Australia are high, and growing, relative to other modes. Australians continue to enjoy some of the cheapest petrol in the developed world and the total volume of fuel consumed continues to increase (Austroads 2005). Our cities rank among the most 'car dependent' in the world (Laird et al 2001).

As discussed in the chapter by Hinde in *The Seven Deadly Sins of Obesity*, evidence that car reliance is contributing to the obesity epidemic is mounting. Frank et al (2004) demonstrated that every hour spent commuting by motor vehicle increases risk of obesity by 6%. The detrimental effects of car reliance are also affecting children. A UK study showed that walking for transport offers the greatest quantity of high intensity activity for children (Mackett et al. 2005). However, a Melbourne survey revealed that less than half of 5–6 year olds, and less than two-thirds of 10–12 year olds, walk or cycle to school once a week or more (Timperio et al. 2004). This study's findings have been corroborated by a recent NSW analysis (van der Ploeg et al. 2008).

An environment dominated by cars discourages active transport. Car-reliant places are more likely to have poor safety, many road crossings, pollution, less visual appeal, and destinations which are relatively inaccessible to pedestrians (see Mees 2000; Frank and Engelke 2001; Handy et al. 2002; Pikora et al. 2003; Saelens et al. 2003). Unsurprisingly, parents are less likely to allow their children to walk to school in such environments (Timperio et al. 2004; Timperio et al. 2006). The dominance of the automobile also leads to urban sprawl, another variable associated with low rates of physical activity and high obesity rates (Ewing et al. 2003).

The rise in car reliance is in part due to the starkly diminished availability of a range of active transport modalities, confining large numbers to reliance on their cars (Mees 2000; Laird et al 2001; Kjellstrom and Hinde 2007). Over the last century a cascade of legislative decisions, wartime imperatives, taxation arrangements, the consolidation of auto-related industries and the ongoing favour of the government have, according to Hinde (2008), contributed to the entrenchment of the car in the urban form, economy and psyche of the majority of Australians.

Hinde's research shows that citizens rely on their automobiles to coordinate multiple daily tasks and activities. For many, the automobile enables participation in the workforce, engagement in parenting activities, provisioning of food for the household, and joining in social and sporting activities. Economic disincentives such as rising petrol prices may reduce car use (especially for economically disadvantaged groups), but without the introduction of suitable transport alternatives, people's mobility and access to healthy lifestyles will be compromised, and the experience of time pressure and demand for 'convenient' solutions compounded.

3.3 Convenience Foods

Convenience foods are foods whose preparation has been outsourced to commercial food sector firms. While such foods have been a feature of food systems for many centuries, it is their ubiquitous presence and affordability within a time-pressured context that makes them so acceptable.

In 2003, the WHO/FAO expert consultation *Diet, Nutrition and the Prevention of Chronic Diseases* 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 a) heavy marketing of energy-dense foods and fast food outlets, and b) high intake of sugars-sweetened soft drinks and fruit juices. There was further "possible evidence" of weight gain being caused by a) large portion sizes, and b) high proportion of food prepared outside the home (Joint WHO/FAO Expert Consultation 2003).

Australian data show that the mean intake of energy increased by up to 10 per cent across all age groups between 1985-1995 (Cook, Rutishauser, & Seeling 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.

There is growing economic incentive to purchase convenience foods. Lower costs of food preparation have made the consumption of mass-produced foods more common and we know that rises in obesity are relatively higher among those who have made the greater use of these market-based offerings, especially women who used to cook for the family (Cutler et al 2003). Fast-foods are energy dense and energy dense foods currently cost relatively less than nutrient dense foods (Drewnowski 2004; Queensland Health 2006).

While there has been little research directly investigating time trade-offs between home prepared and market prepared foods (see Jabs and Devine 2006), we know that with the growing perceptions of "time famines" (Gofton 1990), convenience foods 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 & Banwell 2004) and others (Goodman & Redclift 1991; Shove 2003) show that convenience foods are accepted because they are perceived to offer solutions to the organisation of everyday life.

3.4 Pressure to Practice Child-Centred Rearing

Parents are under pressure to provide children with the basic necessities of life in order to produce strong, healthy, well-educated citizens. Child-centred rearing demands unlimited time, patience and a large investment in energy, knowledge and money (Banwell et al. 2007). It can be seen as a rational response to observations about modern children's perceived vulnerability and the need to give them a head start (often referred to as cultural or educational capital) to become economically productive citizens.

Concern is being expressed about the volume and seductiveness of food advertising aimed at modern children who have been raised to have a powerful voice in family decision making. Elsewhere we have argued that children's food choices, which are swayed by sophisticated and targeted advertising, may influence the eating patterns of the entire family, replacing the father and mother as the primary arbiters of food choice (Dixon and Banwell 2004a).

We anticipate that the Inquiry will receive numerous submissions concerning the merits of regulating television food advertising, and we wish to highlight a new marketing development that raises similar issues. With the advent in the UK of supermarket ranges devoted to children's foods, concern is being expressed about the 'child' consumer (Colls and Evans 2008). Ever-expanding and targeted product ranges serve to confuse an already choice-saturated population that has been enveloped by 'nutritional cacophony' (numerous, conflicting messages about nutrition) for the last 25 years (Fischler 1993; Dixon and Banwell 2004b). In this context, a debate is required concerning where the locus of responsibility should lie for children's and family diets: government, corporations through their corporate social responsibility charters, parents or empowered young people.

Furthermore, increasing emphasis on children of all ages as consumers (Linn 2004) has made parents vulnerable to financial pressures via the need to pay for children's activities. Children's play, sports, and social activities are increasingly commodified leaving children from poorer families vulnerable to exclusion from this world of activity. As pressures increase on urban space the sites where children play (parks, undeveloped land, swimming pools) are under threat of redevelopment and urban infill. Fear for children's safety mean that they are often confined to increasingly small backyards or indoors where research shows they are usually inactive (Mackett 2005). For similar reasons, parents opt to drive their children to school, thus depriving them of one of the most valuable forms of physical activity: walking or cycling to school (Kearns et al 2003).

4. The Cultural Determinants of Health Inequalities

Thomas et al (2004, p.2050) note that "[t]here is credible evidence suggesting that cultural norms within Western societies contribute to lifestyles and behaviours associated with risk factors of chronic diseases". Abel (2008) provides a similar argument.

Culture operates at 4 scales: pan-nationally, nationally, within-nation sub-populations (mediated by socio-economic status, religion, place, gender and ethnicity), and at the group level through behaviours and attitudes. Although the whole population is ensnared in the obesogenic environment, there is variation between sub-populations in the distribution of high BMI because environments are moderated by cultural processes operating within households, families, social networks, neighbourhoods.

Behavioural epidemiologists attest to the diffusion, or social contagion, of emotions and behaviours among peer groups, siblings and communities, leading to rises in obesity (Christakis et al. 2007). Economists working with the concept of the 'social multiplier effect' (Glaeser et al. 2002; Burke and Heiland 2006 and 2007) appear to agree that obesity has spread in part due to the normalisation within whole and sub-populations of larger body sizes.

With growing acceptance that health-compromising ideas, emotions and consumption practices are contagious risk factors, it is timely to investigate how public health might diffuse or spread healthy lifestyles. This can only be achieved through a thorough understanding of the mechanics of culture, especially the way in which culture "helps to produce asymmetries in the abilities of individuals and social groups to define and realise their needs" (Johnson 1986-87, p.39).

For example, it is highly conceivable that feelings of time pressure are transmitted through a contagious process. This psycho-social disposition has the potential to shape eating and activity behaviours among underemployed and single person households as emphatically as observed time scarcity does among those working and raising children or caring for elders, or people with very long working weeks, travel schedules and onerous household time commitments. However, the end-result of responding to the contagion will vary according to the resources that mediate behaviours: like education, and available and affordable foods and activities.

One of the more important behavioural economic principles is that "people are bad at computation when making decisions: they put undue weight on recent events and

too little on far-off ones" (Dawnay & Shah 2005). This delay or hyperbolic discounting principle appears in research on drug and tobacco use. Drug user behaviour, it seems, is guided by immediately available drug intoxication rather than the deferred benefits of "pro-social rewards" which come from not using drugs (Bickel & Marsch 2001, p.74). Impulsivity trumps self-control which – as Offer (2001) notes in relation to eating moderately – takes time, resources and effort to develop. Understanding how pleasure, and foregone pleasure, influences the cultural activities of sub-populations in relation to obesogenic behaviours needs more research; as does the whole area of the cultural determinants of research (see Coveney et al. 2003).

5. Addressing the Cultural Determinants of Obesity

> "*Tired of driving your children to and from school, after school activities and more? Do your children spend a lot of time on buses to access their school? Are you finding it difficult to assist your child with their homework? Have you ever considered boarding school as an alternative?*"
> (Advertisement placed by a consortium of private boarding schools in The Canberra Times, June 10 2008).

Lack of evidence is not the sole barrier to developing interventions that target cultural forces. Cultural precursors to disease have generally not been taken seriously because of an argument that people's living arrangements and cultural attachments (eg. ethnic traditions, religious affiliations, styles of parenting) are personal matters. Moreover, intervening in these attachments runs counter to a view that modern citizens are defined by their ability to exercise free choice in the market place of commodities and ideas.

While governments may feel ambivalent about intervening in culture, corporations recognise the importance of cultural attachments both internally and in their relations with the consuming public. According to the *Wall Street Journal*, the headquarters of Ford Motor Co's North and South American operations displays 2 two rallying cries: "Culture eats strategy for breakfast" and "Culture is unspoken, but powerful. It develops over time – difficult to change" (Margolis and Wilensky 2006). The quote that opens this section illustrates how the market does not feel inhibited in subtly intervening in the cultural sphere. The ad in question exemplifies the aphorism that 'culture eats strategy for breakfast' because it undermines any government attempts to educate the public about the value of public transport and parental responsibility for child well-being.

Social historians of convenience would not be surprised by the ad. The valuing of 'convenient' approaches and commodities has entered society through multiple points over eighty years or so but has escalated in the last twenty (Humphrey 1998; Shove 2003; Dixon et al. 2006). Diluting their appeal will require multiple strategies involving all sectors of society.

Government strategic planners must recognise the dominant cultural ethos as well as numerous sub-population cultural milieu if they are to succeed in influencing unequal health and well-being outcomes. In addition, all Australians, and parents in particular, have to be provided with practical, economic and symbolic support to re-regulate their lives: including meal times and mobility.

To this end, interventions to reduce obesity need to audit their time as well as financial imposts. People need time to keep healthy - to exercise and use active transport, maintain social bonds, and prepare nutritious meals. Parents are time poor and will not be able to benefit from obesity interventions unless ways to offset time costs or tackle time pressures (commute times, long work hour cultures, unpredictable work schedules, urban sprawl, co-location of childcare, schools and workplace) are built into intervention design. More exercise and better food preparation must be, first and foremost, feasible choices.

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