Snowballing obesity: Australians will get run over if they just sit there

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ABSTRACT

- Overweight and obesity are very common in Australian adults (56%) and children (27%).
- Rates of overweight and obesity are snowballing and will place greater burdens on health services for the treatment and care of chronic diseases.
- Prevention is urgently required from health, social and economic perspectives, but the response to date has been inadequate.
- A long-term, sustained action plan starting with a focus on young people is needed. This should particularly address the "obesogenic" environments causing the epidemic.
- Although whole-of-government action is required, support from and involvement by parents, carers, community leaders, healthcare professionals, teachers, childcare workers, urban planners, recreation managers, food manufacturers, employers, advertisers, and communicators is essential.
- The health sector should take the lead, but success will only come from concerted and integrated action across the whole of society.
- There are now signs of political commitment to addressing overweight and obesity. Doctors should get behind this and help mobilise community support.

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AS THE RICHER COMMUNITIES of the world indulge in the festive season, other communities still suffer from food shortages and starvation, arising largely from drought, floods, corruption and conflict. Tragically, 9.5% of the global burden of disease is attributable to underweight,[1] but at the same time hundreds of millions of people in developed and developing countries are overweight or obese. This problem of excessive weight is now so common that it is replacing undernutrition and infectious diseases as the most significant cause of ill health.[2] This growing epidemic has been manifest over the past 20 years as huge increases in body mass index (BMI) in most, if not all, countries, and is due to a combination of "overnourishment" and "underactivity".

Compelling evidence regarding the rate of change in obesity prevalence comes from various countries, including North America, the United Kingdom and Australia. In the United States, the Centers for Disease Control and Prevention have reported 60% of the population have a BMI $> 25\ kg/m^2$, and 27% are obese.[3] This reflects a 61% increase in obesity since 1991.[4] Similar trends have been observed in Canada, where the prevalence of obesity increased from 10% in 1970–72 to 15% in 1998.[5] Likewise, in the UK, the prevalence of obesity rose among men from 13% in 1993 to 21% in 2000, and among women from 16% to 21%.[6]

In Australia in 2001, about 9 million people over the age of 18 were estimated to be overweight or obese, with 3.3 million in the high-risk obese group.[7] The AusDiab study suggests that some 20.6% of the adult population is obese (19.1% of males and 21.8% of females).[8] The figures for overweight are even more striking, with 67% of males and 52% of females in this category. In comparison, 20 years earlier the prevalence of adult obesity was 8%. Given current trends, it is highly likely that by 2010 there will be another 1 million obese adults, and by 2020 another 2 million. According to a recent Organisation for Economic Co-operation and Development (OECD) report of industrialised countries, obesity levels in Australia now rank fourth and are increasing at the fastest rate.[9]

Even more worrying are the accelerating levels in children. In 2003, among 1001 children aged 7–11 years from the Sentinel Site for Obesity Prevention in Victoria, 7.9% were obese and 26.7% were overweight or obese.[10] This compares very poorly with national data from 1985, when the equivalent figures were 1.7% obese and 12.1% overweight or obese. Childhood obesity levels in Australia now appear to rival those in the US and exceed those in the UK, and are attributable to both a decline in physical activity and a rise in energy intake (15% among boys and 12% among girls between 1985 and 1995).

Overweight and obesity are now contributing to very substantial increases in chronic disease morbidity in many countries, and are responsible for escalating personal and health system costs. Health issues include cardiovascular disease, diabetes, cancers and mental health problems. Burden of disease estimates for the impact of obesity, inactivity, and poor nutrition indicate that together these factors are responsible for at least 10% of current health problems and at least equal the contribution of tobacco.[11] The growth in type 2 diabetes is particularly worrying. The view that this only occurs in obese, older adults is being challenged, as cases are now occurring in adolescence. The relative risk of developing diabetes for a person with a BMI of $31\ kg/m^2$ is more than 25, compared with an individual in

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the healthy weight range (BMI, 18.5–24.9 kg/m^2); for a BMI of 35 kg/m^2 the relative risk is greater than 50.[12]

Fifty years ago, people who worked in manual labour had very low rates of obesity compared with more affluent people. But with the coming of technology and mechanisation, together with the perceived higher costs of healthy eating and the perceived problems preventing discretionary exercise, the rates have reversed. Excess weight is now more common among people in lower socioeconomic categories and socially disadvantaged groups, particularly among women. This is brought into sharp focus by Australia's Aboriginal and Torres Strait Islander populations — Indigenous adults are about twice as likely to be obese as non-Indigenous Australians.

The challenge we now face is, to a large part, due to the rise of "obesogenic" environments.[13] Environments that promote obesity are multifactorial and have arisen through changes to social, cultural, physical and economic conditions. They affect both the quantity and quality of the food we eat, and the amount of exercise we take, whether purposeful, incidental or occupational. Factors contributing to the rising levels of overweight and obesity include:

- Changes in family structures and dynamics, and play time with children;
- Growth of labour-saving devices and decline in incidental exercise;
- Increased use of cars, decreasing active travel and use of public transport;
- Concerns about road safety, reducing cycling and walking;
- Attractiveness of television, videos and computer games;
- Decrease in physical activity education and opportunities in schools;
- Concerns about personal security, resulting in home-based activities;
- Less physically active occupations because of automation;
- Changing patterns of family eating and activity;
- Decline in cooking skills for healthy eating in schools and homes;
- Agricultural subsidies and other incentives for high energy products;
- Poor quality and high prices of vegetables and fruit in some areas;
- Lower prices for processed food of much greater energy density;
- Lack of time for cooking because of competing work and social priorities;
- Greater availability of high-energy convenience foods, takeaways, and soft drinks;
- Increased food serving sizes and price incentives to eat more;
- Misleading or inadequate food labelling and consumer information; and
- Heavy marketing of high energy foods, drinks and takeaways.

"While we have made dramatic progress over the last few decades in achieving so many of our health goals, the statistics on overweight and obesity have steadily headed in the wrong direction. If this situation is not reversed, it could wipe out the gains we have made in areas such as heart disease, diabetes, several forms of cancer, and other chronic health problems."
— US Surgeon General, 2001[23]

Television watching, a sedentary activity, is associated with increased obesity rates and should be considered a risk factor in its own right — the average Australian child now watches 2.5 hours a day. A further concern is the massive promotion of high-energy snack foods and soft drinks to children. Television is pervasive and persuasive and can be very effective in communicating to children — in Australia, young people see on average 75 advertisements per day, or 25 000 per year.[14] Children are now exposed to more advertisements on television than by any other means.[15] Those younger than 8 years cannot distinguish advertisements from the main program, and accept the advertisements to be true.[16]

There is also evidence that television advertising targeting children emphasises high-energy and fat-rich foods,[17-19] and between 25% and 40% of all advertisements are for food.[20] It is not surprising, therefore, that children who watch a lot of television are more likely to request these items.[21,22] Not only do advertisements encourage children to pressure their parents to buy unhealthy foods ("pester power"), but television watching also reduces the time for exercise. More effective regulation of television advertising directed at young children is clearly warranted.

These growing concerns have led many countries to respond. For example the US Surgeon General has released a Call to Action to Prevent and Decrease Overweight and Obesity.[23] A Congressional Summit was organised for October 2002, and President Bush is now leading a national campaign on exercise. At the same time, the International Congress on Obesity met in Brazil and came to a unanimous agreement on the need for a major political and population response to obesity as a serious epidemic.

In Australia, high-profile government-sponsored summits have been held (eg, in New South Wales[24] and Victoria[25]) on how we should respond. But putting aside the grandstanding, Australia's response to date has been mixed. Although there may be a perception that a lot of things are happening — indeed we have a plethora of reports on obesity — the level of investment in prevention is remarkably low given the scale of the epidemic and the rising trends. The health sector probably spends less than $1 per person per year on preventing obesity, against $70 per person per year on treating its consequences. Although some good work is going on — particularly in Indigenous communities and in the public transport sector — action is still largely limited to the health sector. Programs are not coordinated, important sectors are not engaged, there are large gaps in coverage, regular monitoring is non-existent, and investment in "delivery-focused" research is largely absent.

Individually focused behavioural programs to control weight have been shown to be effective for those at high risk of diabetes, but the effectiveness of weight-loss programs for people at lower risk is generally disappointing. Even if short-

term improvements occur, the benefits can be lost when the intervention finishes. This is patently evident through the contrast of the multi-billion dollar slimming industry on the one hand, and the rapid increase in body weight on the other. Reliance on personal action alone is insufficient.

Even when "individual" treatment programs are effective (and they require continuing follow-up and involvement), the costs of making such programs widespread are likely to be prohibitive. Such programs are also unlikely to be accessed so readily by disadvantaged groups — increasing the already apparent socioeconomic differences. Public education should also be wary of overpromoting the virtue of thin bodies and inadvertently contributing to the development of eating disorders — the emphasis needs to be on healthy bodies. We must also guard against the victim-blaming approach, which can lead to obese people being labelled, if not bullied or demonised, and parents being criticised for their fat children to the point that issues of cruelty and child abuse are raised. A gain in physical health could easily be offset by deterioration in mental and social health.

A complex web of action is needed to address the underlying social, cultural, physical and economic determinants. Health education programs and other personal services alone will not make a difference. Existing conditions that promote the consumption of high-energy foods, limit activity and promote sedentary behaviour are all too strong and pervasive. A combination of approaches is required, delivered in a coordinated way, with the input of a range of different sectors and organisations. Strategies should focus on supporting parents and families, consumers and communities, schools and the education sector, the food industry, transport and urban design, sport and recreation, media and marketing, and local and national government, as well as the health sector.

Health Ministers have called for a National Obesity Action Plan to be prepared and then implemented quickly to tackle the rising tide of overweight, with a special focus on children, young people and their families. This is commendable and should be supported, but real progress will only occur if other government ministers and departments engage actively. Healthy weight should not be seen as just the health portfolio's responsibility, but rather as everybody's business.

Leadership through the Council of Australian Government (COAG) is particularly needed, with the Prime Minister and Premiers spearheading the charge. Non-governmental organisations, the private sector and the broader community also have a crucial role to play — not least because they have a vested interest as both users and funders of healthcare. The approach needs to be long term and coordinated and to provide simple, consistent messages and interventions. Long-term and sustainable investment, stretching well into the next decade, is required by all groups. All this will require commitment, courage, advocacy and effective coalitions. Given the seriousness of the situation, interventions built on available evidence need to commence urgently at a broad population level, and must be closely evaluated.

There are many vested interests to maintain the status quo, including elements of the food, pharmaceutical, transport, advertising and even health and education industries. Our present response to healthy weight can be likened to Mark Twain's remark that "even if you are on the right track you will get run over if you just sit there". As for road accidents, tobacco, and HIV, it is time for the medical profession to stir and get on the move, and take the lead in advocating prevention — for their own sake and that of their patients.

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