



2. The case for prevention: overweight and obesity

2020 target: halt and reverse the rise in overweight and obesity prevalence

2.1 The scale of the epidemic

One of the greatest public health challenges confronting Australia and many other industrialised countries is the obesity epidemic.

Australia is one of the most overweight developed nations, with overweight and obesity now affecting over 60% of Australian adults⁽²¹⁾ and one in four children. The situation is worse for Aboriginal and Torres Strait Islander people, with nearly one in three Indigenous Australian adults obese.

The escalation of obesity prevalence is part of a worldwide trend linked to changing lifestyles, modernisation and technological change. These changes affect the type and amount of energy-rich food we eat and our levels of daily physical activity. The increase in obesity over the past 20 years is a significant threat to Australia's current levels of good health. It is already impacting on the healthcare system and threatens to reduce life expectancy for future generations. Tackling the obesity crisis and addressing diet, physical activity, maternal and child health and environmental factors must be a priority for prevention.

The major conditions for which obesity predicts higher mortality and/or morbidity include cardiovascular disease, type 2 diabetes, some cancers and, increasingly, osteoarthritis. Obesity is also strongly associated with a wider range of conditions, including sleep apnoea and mental health, reproductive

and back problems. Overweight and obese children and adolescents face some of the same health conditions as adults, and they may be particularly sensitive to the effects on self-esteem and peer-group relationships. For example, type 2 diabetes, previously rare in children and young adults, is now increasingly seen, particularly in the Indigenous community and in some newly migrating groups.

Diabetes prevalence is projected to increase two- to threefold over the next 25 years because of expected increases in the prevalence of obesity, along with demographic changes. Diabetes is also expected to cause the largest growth in disability in the elderly.

CURRENT SNAPSHOT

- The prevalence of overweight and obesity in Australia has been steadily increasing over the last 30 years
- The number of overweight and obese adults increased from 4.6 million in 1989–90 to 5.4 million in 1995, 6.6 million in 2001 and 7.4 million in 2004–05
- Approximately 25% of children are overweight or obese, up from an estimated 5% in the 1960s
- The mean body mass index (BMI) at which Australians enter adulthood has been gradually increasing over the last 20 years
- The mean waist circumference increased between 2000 and 2005, and weight increase was most pronounced in young adults, particularly women⁽²¹⁾



- High body mass alone was responsible for 7.5% of the total burden of disease in 2003, including 20% of cardiovascular disease burden. High body mass and physical inactivity were responsible for 60% of the burden for type 2 diabetes)
- Obesity is particularly prevalent among men and women in the most disadvantaged socio-economic groups, people without post-school qualifications, Indigenous Australians and among many people born overseas
- The combined effect of the cluster of associated risk factors linked with obesity – poor diet, physical inactivity, high body mass and central (abdominal) obesity, high blood pressure and high cholesterol – is responsible for more than 50% of the total burden of cardiovascular disease
- The total financial cost in Australia of obesity alone, not including overweight, was estimated at \$8.3 billion in 2008(10)

2.2 High-risk groups

Obesity is particularly prevalent among men and women in the most disadvantaged socio-economic groups, people without post-school qualifications, Indigenous people and among many people born overseas.

While overweight and obesity are widely distributed among Australian adults and children, there are some significant variations in its distribution across the Australian population.

- For Indigenous people, obesity is the second highest contributor to burden of disease after tobacco use.(22)
- Adults born in Southern and Eastern Europe and those from the Oceania region are more likely to be overweight or obese (65% and 63% respectively).

- Among school children, boys of middle Eastern and European background and boys and girls from Pacific Islander backgrounds are more likely to be obese.
- People from certain ethnic backgrounds in Australia who are disproportionately more overweight or obese suffer higher rates of type 2 diabetes and cardiovascular disease.

2.3 The need for urgent action

Based on current trends there is an urgent and immediate need to address the growing prevalence of obesity and overweight in Australia.

Australia's adult obesity rate is the **fifth highest** among OECD countries, behind the United States, Mexico, the United Kingdom and Greece.(23) While Australia's mortality rates for coronary heart disease, stroke, lung cancer and transport accidents have improved significantly in terms of our ranking with other OECD member countries, this is not the case for our obesity ranking.

Assuming a constant increase in obesity prevalence over the next 20 years in line with current trends, the most recent projections are that there will be 6.9 million obese Australians by 2025.(10) Figures 2.1 and 2.2 below show this trend.

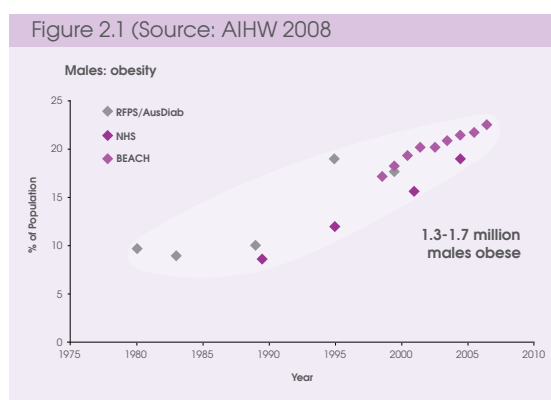
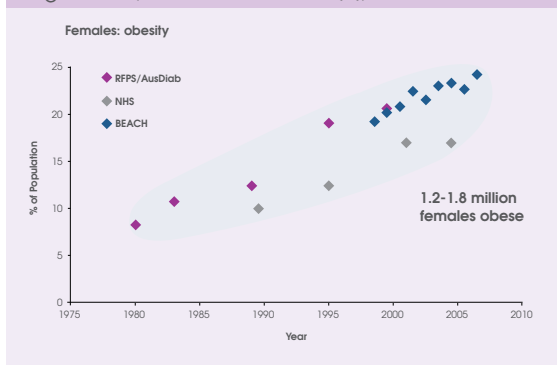




Figure 2.2 (Source: AIHW 2008 (4))



AusDiab = The Australian Diabetic, Obesity and Lifestyle Study
 RFPs = Risk-factor prevalence study
 NHS = National Health Survey
 BEACH = Better Evaluation and Care of Health Survey

2.4 The costs of overweight and obesity

The total financial cost of obesity in Australia in 2008, not including overweight, is estimated at \$8.3 billion.(10)

Reductions in the prevalence and incidence of overweight and obesity could realise savings not only to the health system but also to overall workplace productivity and a reduction in social costs.

Of the total financial costs, the Australian Government bears over one-third (34% or \$2.8 billion per annum) and state governments 5.1%. This estimate includes productivity costs of \$3.6 billion (44%), including short- and long-term employment impacts, as well as direct financial costs to the Australian health system of \$2 billion (24%) and carer costs of \$1.9 billion (23%).

Loss of 'healthy life' will be significant

Predictions of health loss (loss of healthy life) to the year 2023 indicate the largest projected increases will be for neurological disorders and diabetes, with a lesser increase for musculoskeletal disease. In comparison, rates of health loss are expected to decline for conditions such as heart disease, cancer, injuries and chronic respiratory conditions.(24) The projected increase in rates of loss of healthy life associated with diabetes is due mainly to expected increases in body mass.

Diabetes prevalence is projected to increase almost threefold over the next twenty years, and with higher rates of neurological conditions it is expected to cause the largest growth in disability in the elderly.(25)

Health expenditure will rise

A modelled case study prepared for the United Nations estimated that Australia's total health expenditure will increase by 127% in the period 2002 to 2032, from \$71 billion to \$162 billion – an increase of \$91 billion.(22) A study in the US found that if rising trends in obesity levels continue, as in Australia, disability rates will increase across all age groups, offsetting past reductions in disability – and that if this continued in the US, one-fifth of US healthcare expenditure would be needed for treating the consequences of obesity by 2020.(26)

Based on current trends:

- Australians will continue to become more overweight and obese
- There will be six million obese Australians by 2020 and 6.9 million by 2025(10)
- The percentage of the Australian population who will be overweight or obese will have grown to a record 73% in 2025. This includes one-third of our children and three-quarters of our adult population(27)
- Recent trends in Australian children predict that their life expectancy will fall two years by the time they are 20 years old, setting them back to levels seen for males in 2001 and for females in 1997(6)
- A projected rise in the rates of type 2 diabetes, mainly due to expected growth in prevalence of obesity, will increase healthcare costs by \$5.6 billion each year (from \$1.4 to \$7 billion) by 2032(27)
- The burden of disease attributable to high body mass is likely to overtake tobacco as the leading preventable cause of burden as smoking rates decline(28)



2.5 Challenges

The challenges facing future prevention effort for overweight and obesity include:

ESTABLISHING EFFECTIVE LEADERSHIP AND COORDINATION

The scale of the epidemic requires action to begin now. It is crucial that this involves all aspects of national, state and local governments, the non-government sector, industry, business, private interests and local communities, and across all levels of government and within and across sectors. Together, these key players must develop a staged approach that will sustain action in the long term, and will start by halting the current rise in the prevalence of obesity.

SHIFTING TO A POPULATION-WIDE FOCUS

If there is to be real change, Australia needs to avoid the natural tendency to focus only on individual and personal responsibility and ensure that policy directions to tackle overweight and obesity as a major public health issue have a population-wide focus. A wide range of forces, some outside the control of individuals and families, interact to shape patterns of overweight and obesity. The magnitude of this problem warrants a stronger population-level response.

EQUITY

Targeted approaches are needed for groups with disproportionately high rates of overweight and obesity, including Indigenous people, people of different cultural backgrounds (particularly from Pacific Islands and the Middle East), people of lower socio-economic status, children and young or pregnant women. Interventions aimed at children and pregnant women may have a significantly higher impact.

WORKING WITH INDUSTRY

The contribution of Australian industry is crucial in tackling the obesity problem. Industry sectors have already demonstrated their willingness and ability to work in partnership with others to develop strategies and products to enhance the health of Australians. Industry (especially the food and beverage industry and restaurant and catering industries) can make an important contribution by providing information (for example, product and menu labelling and responsible marketing); placing healthy products in more prominent positions in supermarkets; improving the food supply (for example, making healthier and affordable food products available); and developing a more environmentally sustainable food chain.

BUILDING THE EVIDENCE BASE

It will be important to continue developing the evidence base for action on overweight and obesity, but this should not be a cause for delayed action. Australia can build a strong evidence base through research, evaluation, monitoring and surveillance. This should include a much higher investment in research and evaluation of interventions, as well as improving our understanding of the causes of obesity. A specific research agenda should be developed with appropriate levels of funding – public and private. This will need to be supported by the improved monitoring and harmonisation of surveillance systems across Australia.

ENSURING PUBLIC SAFETY

The weight loss industry in Australia is worth millions each year (for example, it is estimated that young women aged 18–32 years spent almost \$414 million on managing their weight in 2002). There are a wide range of weight loss programs available, including commercial weight loss programs (such as pharmacy-based programs), internet-based programs, weight loss products (such as meal replacements) and community-based weight management or exercise groups.



These programs are popular – but there is limited data on their effectiveness. To ensure that practices are safe and effective, programs need to be reviewed and a common code of practice for the industry needs to be developed.

2.6 Halting the epidemic

Reductions in the prevalence and incidence of overweight and obesity would lead to significant social and economic benefits for all Australians, including significant improvements in the health and wellbeing of individuals and families, substantial savings to the healthcare system and improvements in workplace productivity.

In addition to improvements in weight management and the prevention of weight gain in those already overweight or obese, the prevention of overweight and obesity provides an outstanding opportunity to realise a wide range of benefits. By encouraging healthy eating and a more physically active lifestyle across all age groups in the population, we can improve the health and wellbeing of individuals, reduce costs to society, maintain and improve the high levels of life expectancy Australians currently enjoy, and help to narrow gaps in life expectancy.

Investment in prevention not only benefits those who are already overweight or obese, but those who are currently at a healthy weight. Weight loss in people who are overweight and obese improves physical, metabolic, endocrine and psychological complications. Obesity-related mortality can be reduced through weight loss: even a modest loss of 5–10% of body weight can lead to significant health benefits.(29)

THE BENEFIT OF ACTING NOW

- The Australian healthcare system could save \$1.5 billion annually if more people were physically active for 30 minutes a day (based on the gross cost of the prevention, diagnosis and treatment of medical conditions attributable to physical inactivity related to direct public and private health expenditure)(30)
- Weight loss in people who are overweight and obese improves physical, metabolic, endocrine and psychological complications. Obesity-related deaths can be reduced through weight loss – even a modest loss of 5–10% of body weight can lead to significant health benefits(24)
- As well as helping in weight loss and the prevention of weight gain, being physically active can also help prevent type 2 diabetes, lower blood pressure, reduce the risk of some cancers and contribute to mental health wellbeing(28)
- A healthier diet can help in the reduction of high blood fat (for example, cholesterol levels), one of the conditions placing significant pressure on the Pharmaceutical Benefits Scheme, as well as providing many other health benefits(28)
- As BMI increases, so do length of hospital stay, medical consultations and use of medication.(31) Halting current increases in BMI will therefore assist in preventing associated cost rises
- Strategies that are effective in halting and/or reducing the rise in population BMI will benefit national productivity. Obesity was associated with over four million days lost from Australian workplaces in 2001. Obese employees tend to be absent from work due to illness significantly more often than non-obese workers, and for a longer period of time, and they are less likely to be in the labour force(32)



For newly emerging areas of health risk – such as obesity – there are benefits from adopting a ‘learning by doing’ approach.

Obesity is a relatively new area for prevention globally. Australia is one of an early group of countries committed to making a concerted effort. We are at the beginning of a long journey to reverse the current situation, and 2020 will deliver only on the first steps in that journey.

Already, there is evidence about the interventions that are necessary to improve nutrition and physical activity. Lessons from other areas of successful action, such as tobacco control, HIV/AIDS and road trauma, are transferable to obesity.

While many pieces of this jigsaw are known, community readiness for a set of hard-hitting, multifaceted interventions on obesity may at this stage be similar to that in the early days of tobacco control.

There is also much evidence about the effectiveness of interventions that is yet to be captured. These factors speak to a ‘learning by doing’ approach – that is, the staged trialling of a package of interventions accompanied by an appropriate allocation of resources as well as comprehensive monitoring and evaluation.

The World Health Organization recommends the following actions:

- legislate to support the healthier composition of food products
- limit the marketing of food and beverages to children
- enact fiscal policies to encourage the consumption of healthier food products
- promote access to recreational physical activity
- change physical environments to support active commuting and create space for recreational activity
- create healthy school and workplace environments
- undertake mass media, education and information campaigns to promote healthy diets and physical activity
- offer health advice and preventative services in primary healthcare settings(5)

2.7 Priorities for action

In the first instance, policy reforms should aim to halt and reverse the rise in the prevalence of overweight and obesity.

MAJOR IMPERATIVES ARE TO:

- Reshape industry supply and consumer demand towards healthier products by increasing availability and access to healthier food and activity choices
- Protect children and others from inappropriate marketing of unhealthy foods and beverages, and improve public education and information
- Embed physical activity and healthy eating in everyday life through school, community and workplace programs
- Reshape urban environments towards healthy options through consistent town planning and building design that encourage greater levels of physical activity and through appropriate infrastructure investments (for example, for walking, cycling, food supply and recreation)
- Strengthen, skill and support primary health care to support people in making healthy choices, especially through the delivery of community education and advice about nutrition, physical activity and the management of overweight and obesity
- Close the gap for disadvantaged communities through the development of targeted approaches to overweight and obesity for disadvantaged groups, particularly Indigenous and low-income Australians, pregnant women and young children
- Build the evidence base, monitor and evaluate the effectiveness of actions taken

Table 1 sets out some of the ways in which individuals and families, communities, health services, industry and governments can work together on these priorities to achieve change in overweight and obesity.

PRIORITIES	ACTIONS	BENEFITS	Individuals and families	Communities schools & workplaces	Health services	Industry	Cwth, States & Local Government
Reshape industry supply and consumer demand towards healthier products	Review the taxation system to enable access to healthier foods and recreation (eg increase tax breaks for fitness related products and recreational activities and for school and workplaces to provide healthy foods) and provide disincentives for unhealthy foods (eg consider increasing taxes for energy dense foods)	Families have access to affordable fruit and vegetables; schools provide variety of healthy foods in school canteens; workplaces can provide healthier foods and encourage physical activity; and families can spend more time with their children in active play and recreation	■	■	■	■	■
	Regulate the amount of trans fats, saturated fat, salt and sugar content in foods	Food supply is changed, and families have access to foods which are low in levels of transfats, saturated fats, salt and sugar	■			■	■
	Provide subsidies for rural and remote area transport of fresh foods	Healthy food is available on a regular basis throughout Australia at realistic prices. Families in all areas including remote and rural locations have equitable access to purchasing a variety of affordable healthy food products	■	■		■	■
Protect children and others from inappropriate marketing of unhealthy foods and beverages	Curb inappropriate advertising and promotion, including banning advertising of energy dense, nutrient poor foods during children's viewing hours	Healthy eating is reinforced and normalised for Australian children, which enables them to make healthier food choices	■			■	■
		Parents can purchase healthy food choices with less pressure from children for unhealthy food options	■				





PRIORITIES	ACTIONS	BENEFITS	Individuals and families	Communities, schools & workplaces	Health services	Industry	Cwllth, States & Local Government
<p>Improve public education and information</p>	<p>Develop effective national media advertising and public education campaigns to improve eating habits and levels of physical activity</p>	<p>The community is better informed about the importance of healthy eating and regular physical activity in achieving and maintaining a healthy weight. State and territory governments can enhance activity through additional media campaigns and other targeted public education for priority population groups. Funding should be available for local activities that build on mass media messages</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>
<p>Enhance food labelling to support healthier choices, with simple information on trans fat and saturated fat as well as sugar and salt and standardised serve size</p>	<p>Individuals and families have a simple tool to help them make healthy food choices</p>	<p>Food industry ensures products comply with labelling standards</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>
<p>Embed physical activity and healthy eating in everyday life</p>	<p>School based programs</p>	<p>School communities support initiatives that enable healthy eating and physical activity (eg healthy breakfast and lunch programs, removal of unhealthy foods from vending machines, walking school bus)</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>
<p>Workplace programs</p>	<p>Employers and workplaces (both large and small) develop comprehensive setting-based approaches that support healthy eating and physical activity (eg. WorkHealth, Victoria)</p>	<p>Employers and workplaces (both large and small) develop comprehensive setting-based approaches that support healthy eating and physical activity (eg. WorkHealth, Victoria)</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>
<p>Community programs</p>	<p>Local governments and local organisations supporting wide range of physical activity and nutrition programs</p>	<p>Local governments and local organisations supporting wide range of physical activity and nutrition programs</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>	<p>■</p>

PRIORITIES	ACTIONS	BENEFITS	Individuals and families	Communities schools & workplaces	Health services	Industry	Civil, States & Local Government
Reshape urban environments towards healthy options	Facilitate adoption of consistent town planning and general building design that encourage greater levels of physical activity	Local government supports an environment that improves opportunities for physical activity. Families and individuals spend more time cycling or walking to work and for recreation. The community reduces daily use of cars and simultaneously contributes to reduction of carbon emissions and climate change	■	■	■	■	■
	Promote and support re-orientation of urban obesity-promoting environments through appropriate infrastructure investments	State, territory and local government adopt a multi-faceted approach to develop state and municipal plans to re-orient public transportation and increase urban density, support farmers markets, build cycle paths	■	■	■	■	■
Strengthen, skill and support primary health care to support people in making healthy choices	Expand supply of relevant allied health workforce (eg nutritionists)	Community benefits from improved access to professional advice and care. Workforce capacity is increased	■	■	■	■	■
	Develop and disseminate evidence-based clinical guidelines and other multidisciplinary training packages for health and community workers	The health workforce is supported in the delivery of preventative health strategies at the community level	■	■	■	■	■
		States and territories enhance workforce through community placements for training of primary health care workforce	■	■	■	■	■
		Individuals and families have a skilled health workforce available	■	■	■	■	■
		State and territory governments fund programs which educate patients in primary health care settings about nutrition, physical activity, and management of overweight and obesity	■	■	■	■	■
Improve Maternal and Child Health	Promotion of 2003 NHMRC Infant Feeding Guidelines for Health Workers	State and territory governments and local communities develop targeted programs to encourage healthy eating for pregnant women and breastfeeding for newborns	■	■	■	■	■





PRIORITIES	ACTIONS	BENEFITS	Individuals and families	Communities schools & workplaces	Health services	Industry	Cwllth, States & Local Government
Close the gap for disadvantaged communities	Support ongoing research on effective strategies to address social determinants of obesity in Indigenous and low-income communities	State and territory governments, in partnership with local governments, work with community leaders to develop tailored approaches and services to reach Indigenous and low-income groups; to find innovative solutions to change obesity-promoting environments; and to mobilise programs in schools and other community settings		■			■
Build the evidence base, monitor and evaluate effectiveness of actions	Develop a national research agenda for overweight and obesity Ensure safe industry practices	Develop a comprehensive national research agenda and increase investment in research and evaluation of weight reduction interventions Review weight loss industry programs and develop a common code of practice			■	■	■
	Develop a national food strategy (similar to the UK model Food Matters)	Comprehensive national food policy developed to guide action on supply and consumption of healthy foods in Australia				■	■

For more detail on overweight and obesity see Technical Paper 1: Obesity in Australia: a need for urgent action. www.preventativehealth.org.au

QUESTIONS

- What is a realistic target for 2020?
- How can key players (for example, individuals, communities, health services, industry and governments) be engaged from the outset?
- What is the best combination of 'learning by doing' and, at the same time, building the evidence base?
- What can individuals and families do to be physically active, eat well and maintain healthy body weights?
- In what ways can high-risk groups be supported?
- Are the priorities for action appropriate? If you do not think they are appropriate, or have other suggestions, what would you propose we do as a nation to halt the toll of early deaths and disease caused by overweight and obesity?