

OBESITY IN AUSTRALIAN ADULTS: PREVALENCE DATA

CLASSIFICATION OF OVERWEIGHT AND OBESITY

Overweight and obesity are measured and determined using the body mass index (BMI) - the ratio of weight (measured in kilograms) over the square of height (measured in metres). A BMI of 25 kg/m² or greater indicates overweight, and 30 kg/m² or greater indicates obesity.¹

Table 1. Classification of overweight and obesity in adults according to BMI.

Classification	BMI (kg/m ²)	Risk of co-morbidities
Underweight	< 18.5	Low (but risk of other clinical problems increased)
Normal range	18.5 – 24.9	Average
Overweight (pre-obese)	25.0 – 29.9	Mildly increased
Obese	≥ 30.0	
Class I	30.0 – 34.9	Moderate
Class II	35.0 – 39.9	Severe
Class III	≥ 40.0	Very severe

Source: WHO, 1998.²

Waist circumference is another widely used measurement to determine abdominal fat and obesity.

Table 2. Classification of abdominal obesity by waist circumference.

Classification	Waist circumference (cm)	
	Males	Females
Not overweight	< 94.0	< 80.0
Overweight		
Pre-obese	94.0 – 101.9	80.0 – 87.9
Obese	≥ 102.0	≥ 88.0

Source: WHO, 1998.²

Table 3. Age-specific prevalence (%) of overweight and obesity by waist circumference.

	Age (years)						Total
	25-34	35-44	45-54	55-64	65-74	75+	
Overweight							
Male	40.1	51.3	58.3	66.6	71.2	64.8	55.2
Female	36.6	46.9	59.1	72.7	79.7	67.5	56.5
Persons	38.4	49.1	58.7	69.6	75.9	66.3	55.9
Obesity							
Male	13.6	24.6	27.4	35.8	41.2	36.8	26.6
Female	17.1	25.6	37.6	46.7	52.2	43.0	33.9
Persons	15.3	25.1	32.4	41.2	47.3	40.5	30.3

Source: AusDiab Report, 2001.³

THE GLOBAL EPIDEMIC OF OBESITY

An escalating epidemic of overweight and obesity is affecting many countries in the world. The prevalence of overweight and obesity is rising at an alarming rate in developed “westernised” countries as well as less developed countries.² This represents a global public health problem and a rapidly growing threat to the health of populations in countries worldwide.

AUSTRALIA'S OBESITY EPIDEMIC: A CHRONIC PROBLEM

The prevalence of overweight and obesity in Australia is increasing.⁵ Australia's obesity epidemic is threatening the lives of more than half of all Australians. The most recent national study that measured height and weight (the 2000 AusDiab study) showed that more than half of all Australian women (52%) and two-thirds of men (67%) are overweight or obese.⁶ That is, almost 60% of the adult population in Australia is overweight or obese.⁷

The true figure today is likely to be higher. The 2005 AusDiab follow-up study found that the average weight, BMI and waist circumference of participants increased substantially in this 5 year period. The mean weight increase in 25 to 54 year olds ranged from 1.8 kg to 3.5 kg. The

mean waist circumference increased by 1.2 – 3.5 cm for people aged 25 to 74.⁸

Self-reported BMI data from the 2004/05 National Health Survey revealed that 32.6% of adults reported being overweight of which 40.5% were males and 24.9% were females. The percentage of adults reported to be obese was 16.4% and males accounted for 17.8% and females 15.1%.⁹ NB: Caution should be taken when looking at self-reported values as height is often overestimated and weight underestimated leading to a large underestimate of obesity rates.

Table 4. Prevalence of overweight and obesity defined by body mass index among Australian adults.

Age-specific prevalence (%) of overweight							
	25-34	35-44	45-54	55-64	65-74	75+	Total
BMI ≥25.0-29.9 kg/m ²							
Males	43.7	46.8	51.1	48.9	53.6	50.8	48.2
Females	22.6	25.7	32.1	35.4	37.4	36.4	29.9
Total	33.5	36.3	41.7	42.2	44.8	42.4	39.0
Age-specific prevalence (%) of obesity							
	25-34	35-44	45-54	55-64	65-74	75+	Total
BMI ≥30 kg/m ²							
Males	17.4	17.8	20.8	25.5	19.9	12.7	19.3
Females	12.4	19.5	26.9	32.8	29.4	15.6	22.2
Total	15.0	18.6	23.8	29.1	25.1	14.4	20.8

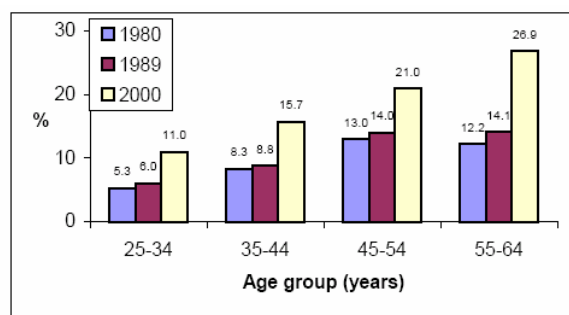
Source: Cameron et al., 2003.⁷

Table 4 shows that the prevalence of obesity increased steadily up to the age group 55-64 years, after which the prevalence fell. Mean BMI was 26.9 kg/m² for men and 26.4 kg/m² for women.⁷ If the current rates of increase in the levels of obesity are maintained, it is estimated that by the year 2010, 70% of Australians will be above their healthy weight range. By around 2025, 1 in every 3 adults in Australia will be obese (IOTF estimate).

TRENDS OVER TIME

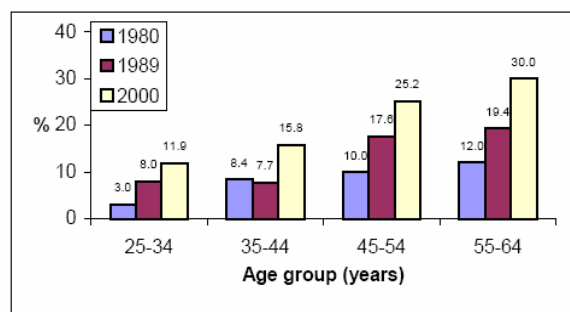
There have been clear signs that men and women are becoming heavier. The prevalence of obesity in Australia has more than doubled in the past 20 years; the prevalence is 2.5 times higher now than in 1980.⁷

Figure 1. Trends in the age-specific prevalence (%) of obesity in males: 1980 – 2000.



Source: AusDiab Report, 2001.³

Figure 2. Trends in the age-specific prevalence (%) of obesity in females: 1980 – 2000.



Source: AusDiab Report 2001.³

Most recent Australian data from the AusDiab Study³ (above) indicate that:

- Between 1980 and 2000, the prevalence of obesity in males and females had increased significantly.
- For males, the prevalence of overweight and obesity increased from 1980 to 2000 by 17.5% and 10% respectively.
- For females, the prevalence of overweight and obesity increased from 1980 to 2000 by 18% and 12% respectively.
- Generally, the prevalence of obesity among adults tended to increase with age.

This is supported by self-reported data from the National Health Surveys. When compared to similar data from the 1995 National Health Survey, 2004/05 data indicates overweight adults has increased from 29.5% to 32.6% and obesity has increased from 11.1% to 16.4%. Interestingly, people in the 55 to 64 year category had the highest percentage of overweight and obesity with 72% of males and 58% of females.⁸

OBESITY IN NEW ZEALAND

Overweight and obesity in New Zealand is also a public health concern. Classification of overweight and obesity in adults is different in New Zealand as it accounts for the increased muscle mass of the Maori and Pacific Islanders.¹⁰ 1 in 3 adult New Zealanders are overweight but not obese and more prevalent in males than females whereas 1 in 5 adult New Zealanders are obese.¹¹

Table 5. Classification of overweight and obesity in adults according to BMI for New Zealand.

Classification	European, Asian and other	Maori and Pacific
Overweight	25.0-29.9	26.0-31.9
Obese	≥30.0	≥32.0
Overweight or obese	≥25.0	≥26.0

Source: NZ Ministry of Health, 2004.¹¹

Data on the prevalence of overweight and obesity in New Zealand is represented in the tables below.

Table 6. The prevalence (%) of overweight and obesity in New Zealand.

	European/Other		Maori		Pacific		Asian		All	
	M	F	M	F	M	F	M	F	M	F
Overweight	42	27	38	34	44	35	23	19	40	28
Obese	18	20	29	27	38	48	4	6	19	21

Source: NZ Ministry of Health, 2004.¹¹

Table 7. Trends in obesity prevalence (%) for adults aged 15-75+ years in New Zealand.

	15-24	25-34	35-44	45-54	55-64	65-74	75+
Males	9	17	21	27	28	45	19
Females	13	21	32	24	31	32	17

Source: NZ Ministry of Health, 2004.¹¹

REFERENCES 1. www.naaso.org - North American Association for the Study of Obesity. 2. World Health Organization. Obesity: Preventing and Managing the Global Epidemic. Geneva: WHO, 1998. 3. Dunstan D, Zimmet P, Welborn T, Sicree R, Armstrong T, Atkins R et al. Diabetes and Associated Disorders in Australia - 2000: The Accelerating Epidemic. The Australian Diabetes, Obesity and Lifestyle Report. Melbourne: International Diabetes Institute, 2001. 4. Han TS et al. Waist circumference action levels in the identification of cardiovascular risk factors: prevalence study in a random sample. *British Medical Journal*, 1995; 311: 1401-1405. 5. World Health Organization. Obesity: Preventing and Managing the Global Epidemic: Report of the WHO Consultation of Obesity. Geneva: WHO, 1997. 6. www.health.nsw.gov.au - NSW Health. 7. Cameron AJ, Welborn TA, Zimmet PZ, Dunstan DW, Owen N, Salmon J et al. Overweight and obesity in Australia: the 1999-2000 Australian diabetes, obesity and lifestyle study (AusDiab). *Medical Journal of Australia*, 2003; 178: 427-432. 8. Barr ELM, Magliano DJ, Zimmet PZ, Polkinghorne KR, Atkins RC, Dunstan DW, Murray SG, Shaw JE. AusDiab 2005 The Australian Diabetes, Obesity and Lifestyle Survey. Tracking the accelerating epidemic: Its causes and outcomes. 2006. Melbourne: International Diabetes Institute. 9. Australian Institute of Health and Welfare. Australia's Health 2006. 2006. AIHW Cat no. AUS73: Canberra: AIHW. 10. Swinburn B. Using the body mass index: weigh then weigh up. *New Zealand Medical Journal*, 1998; 11: 377-9. 11. New Zealand Ministry of Health. A Portrait of Health: Key Results of the 2002/03 New Zealand Health Survey. 2004 Wellington: NZ Ministry of Health.