

Physiological and anthropometric measures

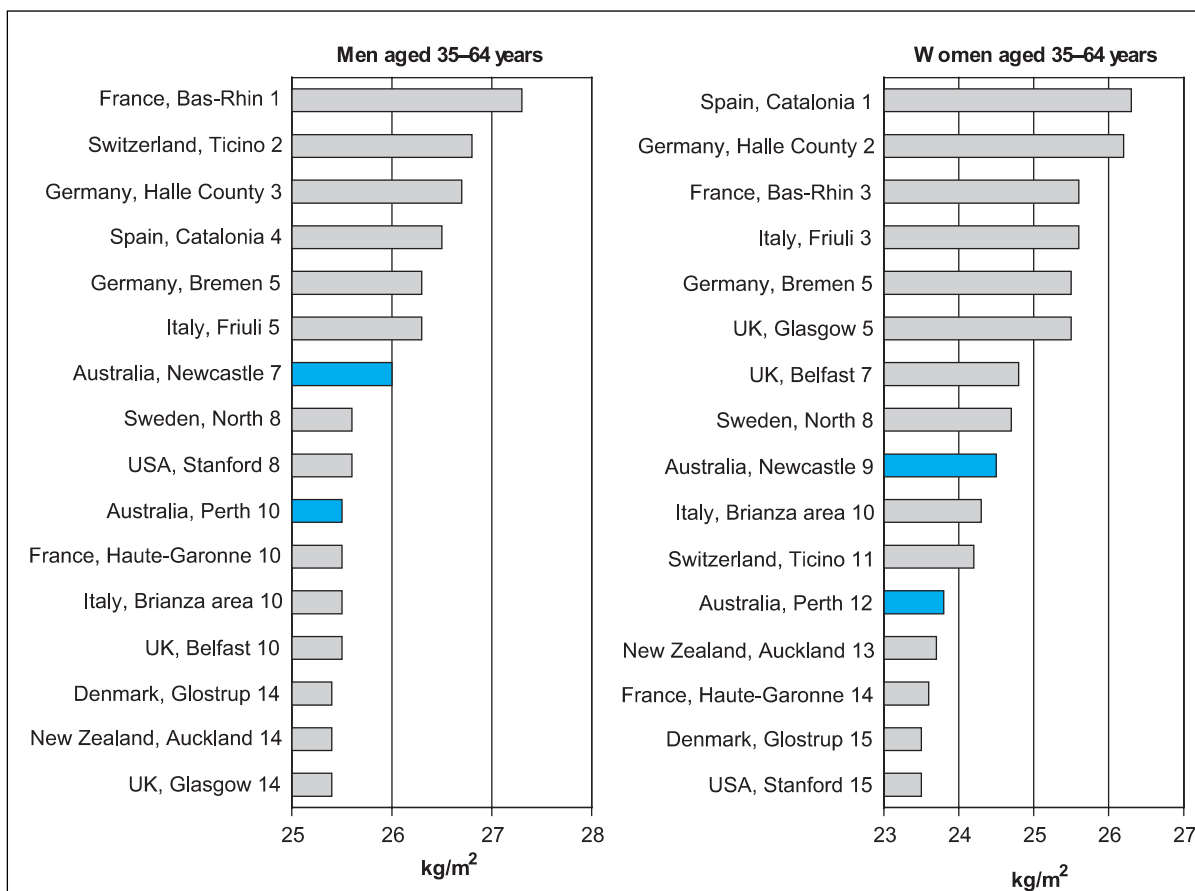


Figure 1: Mean body mass index, WHO MONICA project, 1982–1987

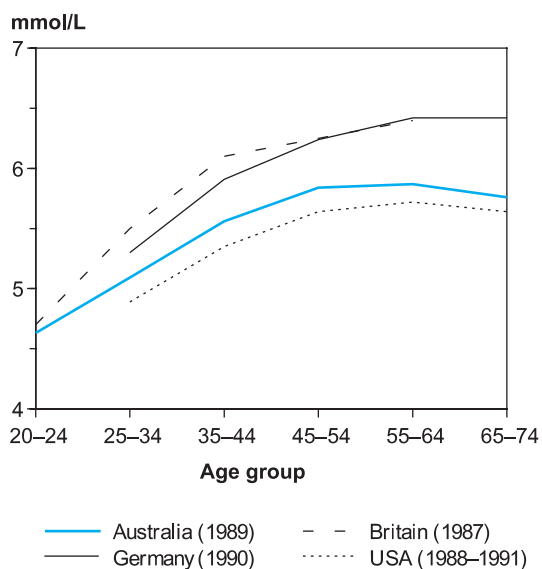


Figure 2: Mean total plasma cholesterol levels for men, by age group

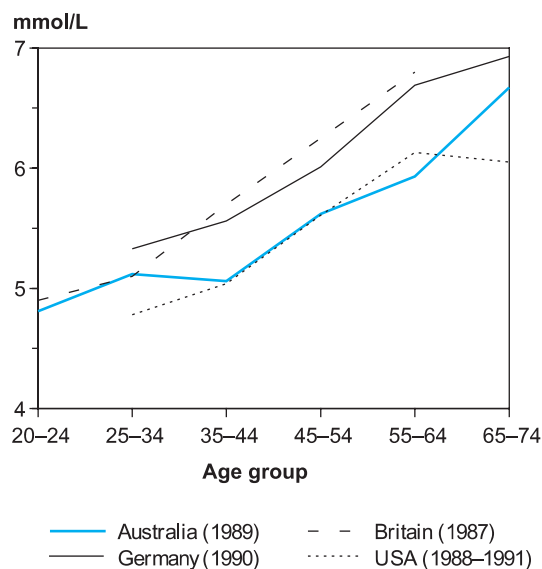


Figure 3: Mean total plasma cholesterol levels for women, by age group

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Total cholesterol levels, systolic blood pressure and body mass index, by sex, selected studies and WHO MONICA project

Region or country	Men			Women		
	Total cholesterol	Systolic blood pressure	Body mass index	Total cholesterol	Systolic blood pressure	Body mass index
Selected studies ^(a)	mmol/L	mmHg	% BMI > 30	mmol/L	mmHg	% BMI > 30
Australia (1989)	5.6	126	9	5.1	116	8
Britain (1987)	6.1	126	11	5.7	118	10
Canada (1986–1990)	5.4	123	16	4.9	114	15
Germany (1990)	5.9	129	14	5.6	119	9
New Zealand (1989)	6.2	—	13	5.8	—	13
Sweden (1988–89)	—	—	6	—	—	6
USA (1988–1991)	5.4	126	12	5.0	119	16
WHO MONICA project ^(b)	mmol/L	mmHg	kg/m ²	mmol/L	mmHg	kg/m ²
Australia, Newcastle	5.7	129	26.0	5.6	125	24.5
Australia, Perth	5.8	131	25.5	5.7	122	23.8
Denmark, Glostrup	6.2	125	25.4	6.1	121	23.5
France, Bas-Rhin	5.5	143	27.3	5.4	133	25.6
France, Haute-Garonne	5.9	130	25.5	5.7	125	23.6
Germany, Bremen	6.0	139	26.3	6.0	135	25.5
Germany, Halle County	—	137	26.7	—	138	26.2
Italy, Brianza area	5.6	136	25.5	5.5	131	24.3
Italy, Friuli	—	140	26.3	—	136	25.6
New Zealand, Auckland	5.7	131	25.4	5.7	123	23.7
Spain, Catalonia	—	121	26.5	—	118	26.3
Sweden, North	6.1	131	25.6	6.0	126	24.7
Switzerland, Ticino	5.5	131	26.8	5.2	126	24.2
UK, Belfast	5.9	132	25.5	6.0	129	24.8
UK, Glasgow	6.2	134	25.4	6.4	131	25.5
USA, Stanford	5.3	127	25.6	5.2	120	23.5

(a) Mean values for men and women aged 35 to 44 years, except Britain and New Zealand (35 to 49 years) and Germany (30 to 39 years).

(b) Age-standardised 50th percentiles for men and women aged 35 to 64 years, early to mid-1980s.

Sources: Waters & Bennett 1995a; WHO MONICA Project 1989.

- High cholesterol levels, blood pressure and obesity may predispose persons to severe health problems such as cardiovascular disease, perhaps the greatest health problem in the developed world. The World Health Organization's MONICA study provides internationally comparable data for these and other health determinants (WHO MONICA project 1989).
- Mean values of total plasma cholesterol, as measured through national sample surveys, vary in range from 5.4–6.2 mmol/L among men and from 4.9–5.8 mmol/L among women. In comparison, mean values are somewhat higher among women sampled in the MONICA study. Mean levels in Australia are at the lower end of the distribution, and persist throughout life (Figures 2 and 3). Yet the 1989 Risk Factor Prevalence Survey found that 16.0% of men and 14.2% of women aged 20–69 years in Australia were at high risk of developing coronary heart disease, with cholesterol levels above 6.5 mmol/L (Waters & Bennett 1995a).
- Variation in mean systolic blood pressure was found to be much smaller in the national sample surveys than that obtained in the MONICA study. Australian values fall in the middle of the range noted in the MONICA study. The 1989 Risk Factor Prevalence Survey found 18.3% of men and 14.3% of women in Australia to be hypertensive, with systolic blood pressures ≥ 160 mmHg.
- Both men and women in Australia in the mid-1980s rank mid-way internationally with respect to body mass index (BMI); however, the BMI values varied between Newcastle and Perth women included in the study (Figure 1). In terms of obesity, 9% of Australian men and 8% of Australian women have a BMI ≥ 30 .

For more information, see:

Waters A-M, Bennett S 1995. Risk factors for cardiovascular disease: a summary of Australian data. Cardiovascular Disease Series No. 1. Canberra: AIHW.