

**TITLE**

Comparison of cardiovascular disease risk factors, assessment and management in men and women, including consideration of absolute risk: a nationally representative cross-sectional study

**Supplementary material**

Table S1. Crude numbers of participants in the Australian Health Survey (AHS) and the National Health Measures Survey (NHMS) aged 45-74 years, by sex.

	Australian Health Survey			
	Total sample (n=11,518)		National Health Measures Survey sample (n=5,353)	
	Male % (n)	Female % (n)	Male % (n)	Female % (n)
Number of participants, n(%)	5396 (46.8)	6122 (53.2)	2429 (45.4)	2924 (54.6)
Median age in years (IQR)	57 (50-65)	58 (51-65)	59 (52-65)	59 (52-65)
Age group, years				
45-54	39.6 (2134)	39.0 (2386)	34.1 (829)	35.4 (1034)
55-64	35.3 (1906)	34.0 (2083)	37.0 (898)	35.7 (1044)
65-74	25.1 (1356)	27.0 (1653)	28.9 (702)	28.9 (846)
Country of birth				
Australia/ NZ	72.4 (3909)	71.3 (4363)	72.8 (1768)	74.2 (2168)
Other	27.6 (1487)	28.7 (1756)	27.2 (661)	25.8 (755)
Region of Residence				
Major cities	60.9 (3287)	61.2 (3746)	59.3 (1440)	59.4 (1737)
Inner regional	20.6 (1113)	20.7 (1270)	23.4 (568)	23.5 (688)
Outer regional and remote	18.5 (996)	18.1 (1106)	17.3 (421)	17.1 (499)
Educational qualifications				
Tertiary	20.8 (1121)	23.3 (1425)	21.9 (531)	25.2 (736)
Diploma/ certificate/ trade	39.6 (2136)	29.8 (1825)	43.0 (1044)	31.1 (910)
High school or below	20.8 (1121)	23.3 (1425)	33.0 (802)	42.3 (1238)

Notes: % of missing cases (AHS, NHMS): country of birth (<1, <1); highest educational qualifications (1.7, 1.7). There were no missing data on age, sex or region of residence.

Table S2. Crude numbers of participants in the Australian Health Survey (AHS) and the National Health Measures Survey (NHMS) aged 18 years and over, by sex.

	Australian Health Survey			
	Total sample (n=24,910)		National Health Measure Survey sample (n=9564)	
	Male n (%)	Female n (%)	Male n (%)	Female n (%)
Number of participants %(n)	46.5 (11,576)	53.5 (13,334)	44.5 (4252)	55.5 (5312)
Median age in years (IQR)	47 (34-61)	48 (34-63)	53 (40-65)	51 (38-64)
Age group				
18-44	45.4 (5250)	44.3 (5905)	33.2 (1410)	36.8 (1952)
45-54	18.4 (2134)	17.9 (2386)	19.5 (829)	19.5 (1034)
55-64	16.5 (1906)	15.6 (2083)	21.1 (898)	19.7 (1044)
65-74	11.7 (1356)	12.4 (1653)	16.5 (702)	15.9 (846)
75+	8.0 (930)	9.8 (1307)	9.7 (413)	8.2 (436)
Country of birth				
Australia/ NZ	73.8 (8539)	74.1 (9885)	72.2 (3068)	74.8 (3975)
Other	26.2 (3036)	25.8 (3446)	27.9 (1184)	25.2 (1336)
Region of Resident				
Major cities	64.5 (7463)	63.5 (8468)	62.9 (2675)	62.8 (3335)
Inner regional	18.7 (2165)	19.5 (2597)	21.5 (913)	21.6 (1149)
Outer regional and remote	16.8 (1948)	17 (2269)	15.6 (664)	15.6 (828)
Educational qualifications				
Tertiary	23 (2658)	26.3 (3508)	25.1 (1065)	29 (1542)
Diploma/ certificate/ trade	38.7 (4482)	30.5 (4070)	40.4 (1716)	31.2 (1659)
High school or below	36.5 (4222)	41.8 (5569)	32.5 (1381)	38.4 (2041)

Table S3. Means, medians and interquartile range for continuous CVD risk factors in Australian population aged 18 years and over, by sex.

	Men			Women		
	Mean	Median	Interquartile range	Mean	Median	Interquartile range
BMI	27.7	27.2	24.4-30.4	27.1***	25.8	22.6-30.6
Waist circumference	97.7	97.0	88.0-106.0	87.6***	85.5	76.1-97.0
Systolic blood pressure	125.9	122.0	114-134	119.9***	116.0	106-130
Diastolic blood pressure	77.4	78.0	70.0-84.0	76.2***	76.0	68.0-82.0
LDL cholesterol	3.2	3.1	2.6-3.7	3.1**	3.0	2.5-3.6
HDL cholesterol	1.2	1.2	1.0-1.4	1.5***	1.4	1.2-1.7
Total cholesterol	5.0	5.0	4.3-5.7	5.1	5.0	4.4-5.7
Total: HDL cholesterol	4.4	4.2	3.5-5.1	3.6***	3.4	2.9-4.1
Triglycerides	1.5	1.2	0.9-1.7	1.1***	1.0	0.7-1.4
Fasting plasma glucose	5.2	5.0	4.7-5.4	5.0***	4.8	4.5-5.2
HbA1c	36.6	35.0	33-39	35.8***	35.0	32.0-38.0

Notes: \*\*\* indicates that means are significantly different  $p < 0.001$ , \*\*  $p < 0.01$ .

Table S4. Means, medians and interquartile range for continuous CVD risk factors in Australian population aged 45-74 years without prior CVD, by sex.

	Men			Women		
	Mean	Median	Interquartile range	Mean	Median	Interquartile range
BMI	28.8	28.3	25.4-31.4	28.1***	27.0	23.8-31.3
Waist circumference	101.6	100.5	93.0-109.0	90.6***	89.1	80.3-100.0
Systolic blood pressure	130.6	128	118-142	126.9***	124	114-138
Diastolic blood pressure	80.8	80.0	74-88	79.0***	78.0	72-86
LDL cholesterol	3.4	3.3	2.8-3.9	3.4	3.4	2.8-3.9
HDL cholesterol	1.2	1.2	1.0-1.4	1.5***	1.5	1.3-1.7
Total cholesterol	5.3	5.3	4.7-5.9	5.5***	5.5	4.8-6.1
Total: HDL cholesterol	4.5	4.4	3.6-5.3	3.8***	3.6	3.1-4.3
Triglycerides	1.6	1.3	1.0-1.9	1.2***	1.1	0.8-1.5
Fasting plasma glucose	5.5	5.2	4.9-5.7	5.1***	5.0	4.7-5.4
HbA1c	38.2	37.0	34-40	37.4**	37.0	34-39

Notes: \*\*\* indicates that means are significantly different  $p < 0.001$ , \*\*  $p < 0.01$ .

Table S5. Population prevalence of 5-year absolute risk of CVD among Australians aged 18 years and over, by sex.

	Low primary risk % (95%CI)	Moderate primary risk % (95%CI)	High primary risk % (95%CI)	Prior CVD % (95%CI)
Men	74.8 (73.5, 76.0)	6.9 (5.9, 7.9)	10.8 (9.9, 11.7)	7.6 (6.7, 8.5)
Women	86.3 (85.4, 87.3)	2.4 (1.9, 2.8)	5.3 (4.4, 6.1)	6.0 (5.2, 6.9)
Total	80.6 (79.8, 81.3)	4.6 (4.0, 5.2)	8.0 (7.3, 8.7)	6.8 (6.2, 7.4)

Notes: FRE Framingham risk equation.

Table S6. Estimated proportions (with 95% confidence intervals) and numbers of people in the Australian population aged 45-74 years receiving cardiovascular disease medications for those at low, moderate and high primary CVD risk, and those with prior atherosclerotic/ thromboembolic CVD, by sex.

	Blood pressure- lowering medication	Lipid-Lowering medication	Antithrombotic medication	Blood pressure- and lipid-lowering medication	Blood pressure- and lipid-lowering and antithrombotic medication	No medication
Low risk						
Men %	15.2 (11.1, 19.2)	13.9 (10.0, 17.8)	5.0 (3.3, 6.7)	6.1 (3.6, 8.5)	n/a	76.1 (71.6, 80.6)
N ('000)	326	298	107	131		1,631
Women %	20.2 (17.4, 22.9)	13.0 (10.5, 15.5)	5.8 (4.1, 7.5)	6.7 (4.8, 8.7)	n/a	71.9 (68.7, 75.1)
N ('000)	613	394	176	203		2,180
Moderate risk						
Men %	33.3 (22.9, 43.6)	18.2 (10.3, 26.0)	17.3 (10.0, 24.6)	10.9 (5.1, 16.7)	n/a	56.5 (45.8, 67.1)
N ('000)	166	91	86	54		281
Women %	35.1 (17.9, 53.1)	21.9 (6.7, 37.2)	20.6 (3.9, 37.2)	15.8 (2.6, 28.9)	n/a	49.3 (30.0, 68.6)
N ('000)	37	23	22	17		52
High risk						
Men %	43.7 (34.7, 52.7)	33.3 (24.2, 42.3)	18.8 (11.9, 25.7)	24.0 (16.3, 31.7)	11.1 (5.6, 16.6)	45.0 (35.3, 54.7)
N ('000)	243	185	104	133	62	250
Women %	44.4 (32.1, 56.6)	28.2 (16.2, 40.2)	18.6 (9.6, 27.6)	21.0 (9.4, 32.6)	9.3 (1.3, 17.3)	47.4 (34.6, 60.3)
N ('000)	108	68	45	51	23	115
Prior atherosclerotic/ thromboembolic CVD						
Men %	73.6 (67.8, 79.3)	65.2 (57.6, 72.8)	66.1 (59.7, 72.5)	56.7 (49.6, 63.8)	41.6 (34.7, 48.5)	11.0 (7.0, 15.1)
N ('000)	230	204	207	178	130	34
Women %	62.0 (53.4, 70.6)	58.9 (51.1, 66.7)	48.6 (40.2, 57.0)	44.2 (34.9, 53.6)	28.1 (20.9, 35.4)	16.8 (10.5, 23.2)
N ('000)	114	109	90	82	52	31

Notes: n/a: cell sizes have been suppressed due to small sample size. No medication refers to no blood pressure- lowering, lipid-lowering or antithrombotic medications.

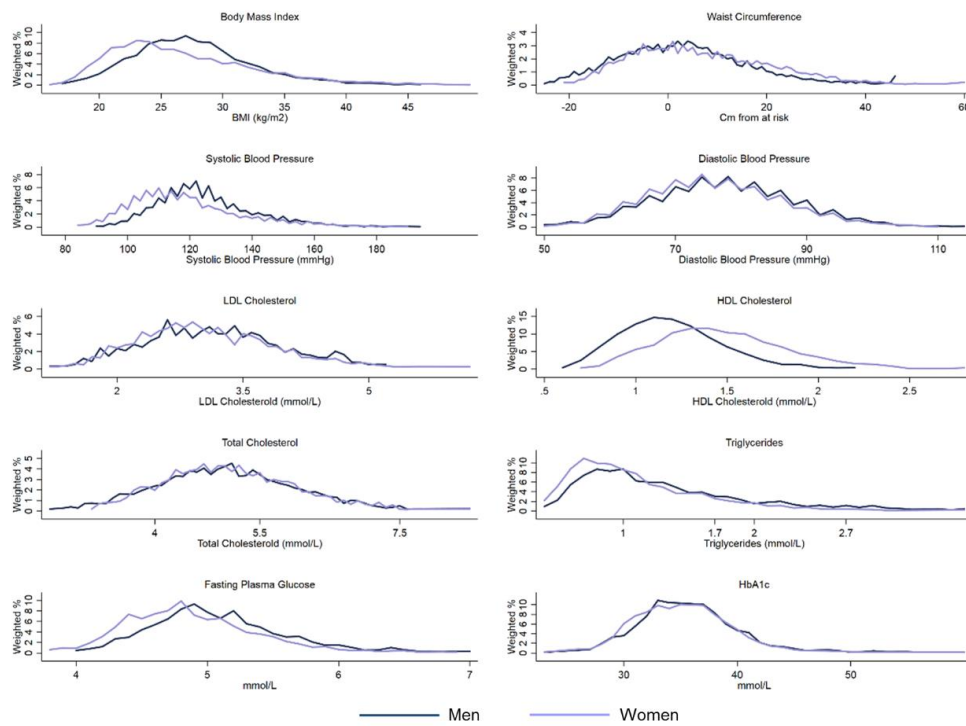


Figure S1. Distribution of CVD risk factors in population aged 18 years and over, by sex. Notes: The x-axis for waist circumference is estimated with the difference between waist circumference and the sex-specific cut points for an “at risk” waist circumference (80cms for women, 94cms for men). Body mass index and waist circumference were rounded to the nearest whole number. Systolic and diastolic blood pressure were rounded to the nearest second number. Risk factor values with less than 10 respondents have been suppressed.

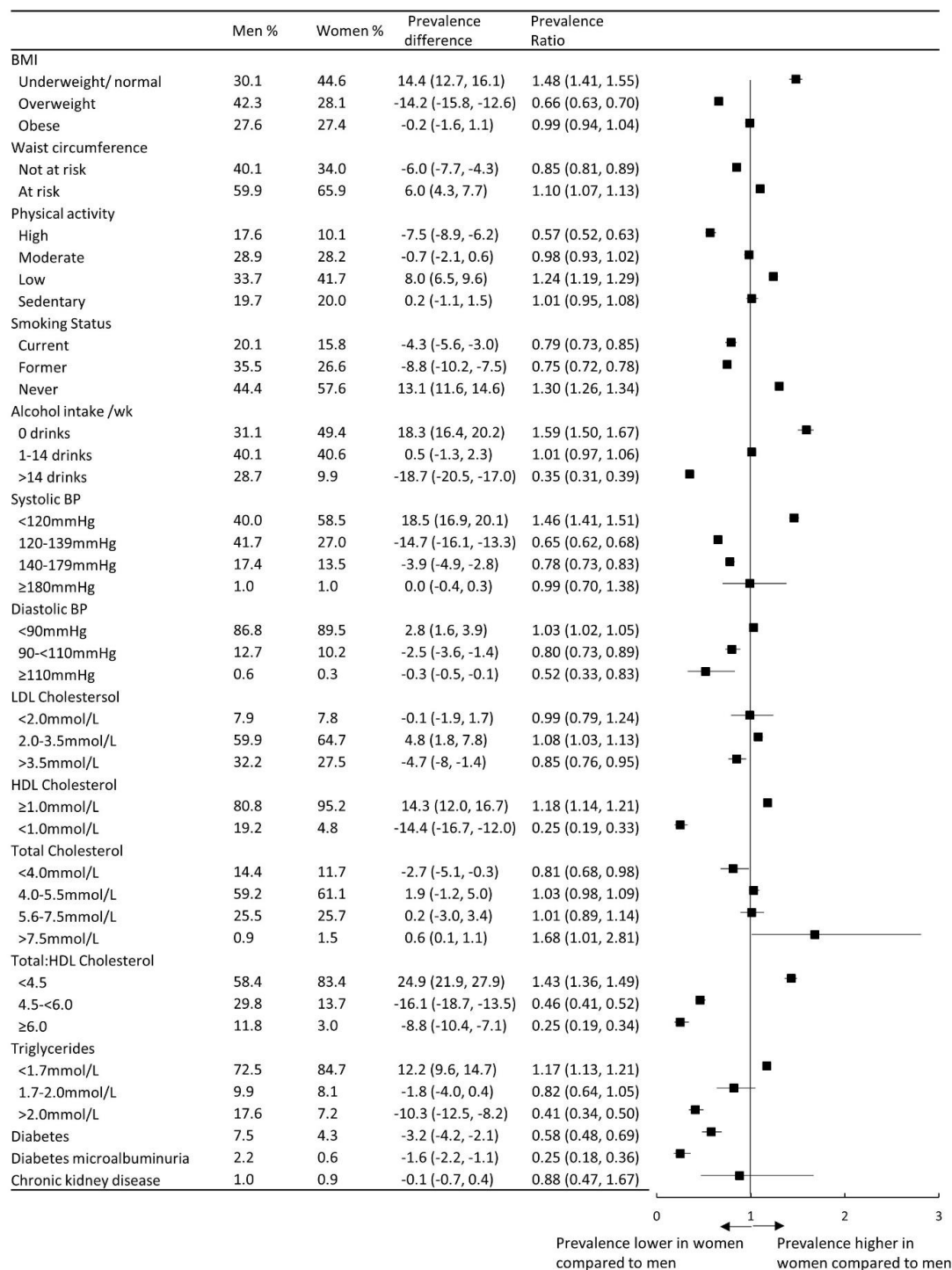


Figure S2. Age-adjusted prevalence, prevalence difference and prevalence ratios (and 95% CI) for CVD risk factors for the population aged 18 years and over for women versus men. Notes: Weighted percent are age-adjusted. The prevalence ratio is plotted.

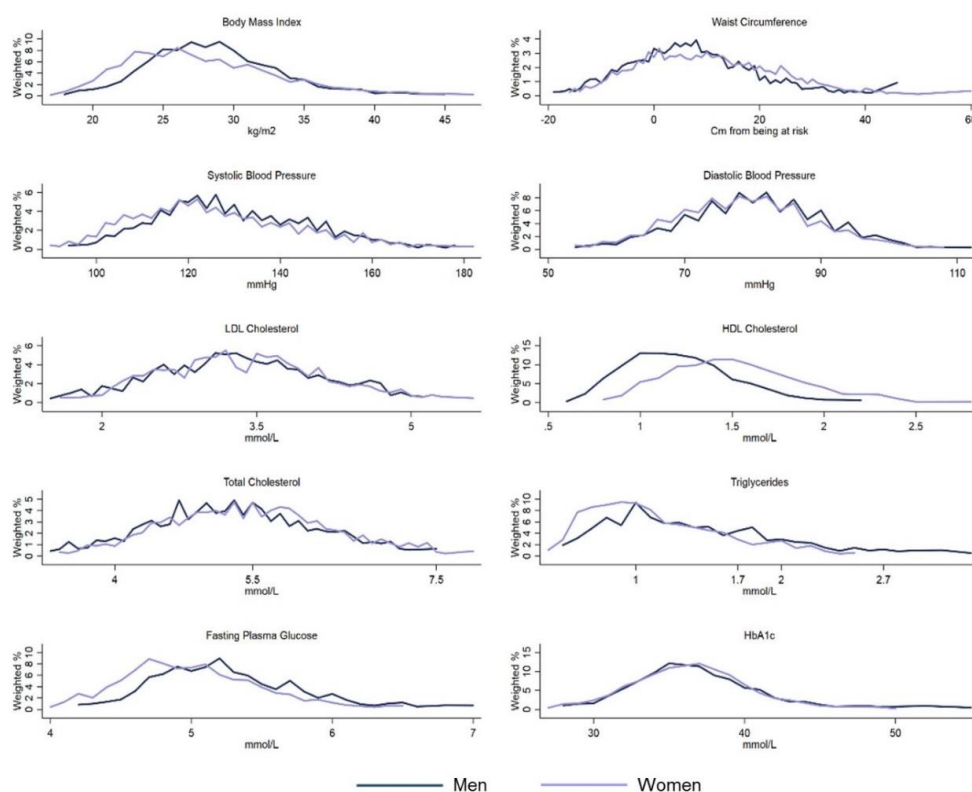


Figure S3. Distribution of CVD risk factors in the Australian population aged 45-74 years without prior CVD, by sex. Notes: The x-axis for waist circumference is estimated with the difference between waist circumference and the sex-specific cut points for an “at risk” waist circumference (80cms for women, 94cms for men). Body mass index and waist circumference are rounded to the nearest whole number. Systolic and diastolic blood pressure are rounded to the nearest second number. Risk factor values with less than 10 respondents have been suppressed.



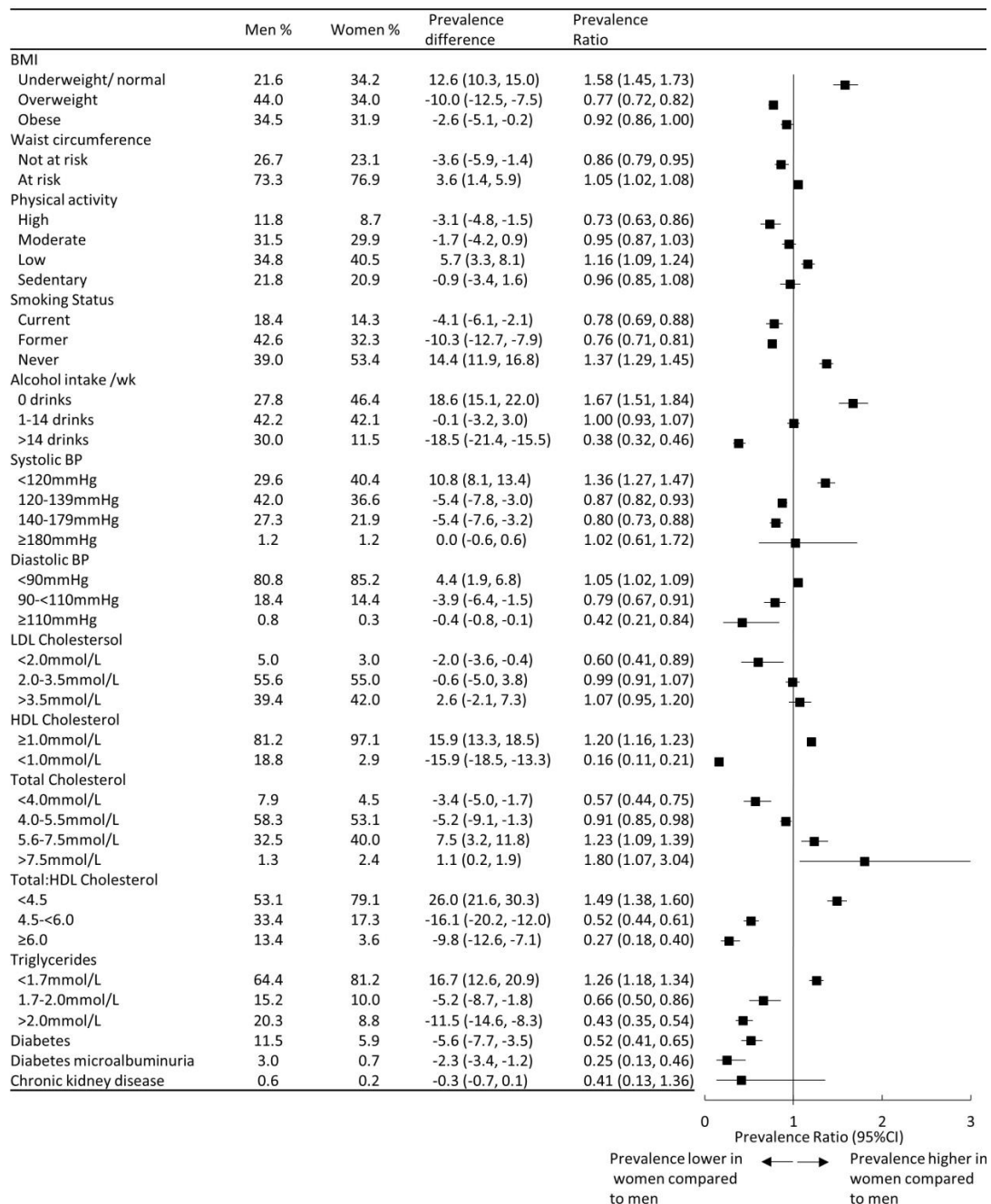


Figure S4. Age-adjusted prevalence, prevalence difference and prevalence ratios (and 95% CI) for CVD risk factors for the population aged 45-74 years without prior CVD for women versus men.

Notes: Prevalence differences and prevalence ratios compares women to men. The prevalence ratio is plotted. An at risk waist circumference is defined as  $\geq 80$ cm for women and  $\geq 94$ cm for men.

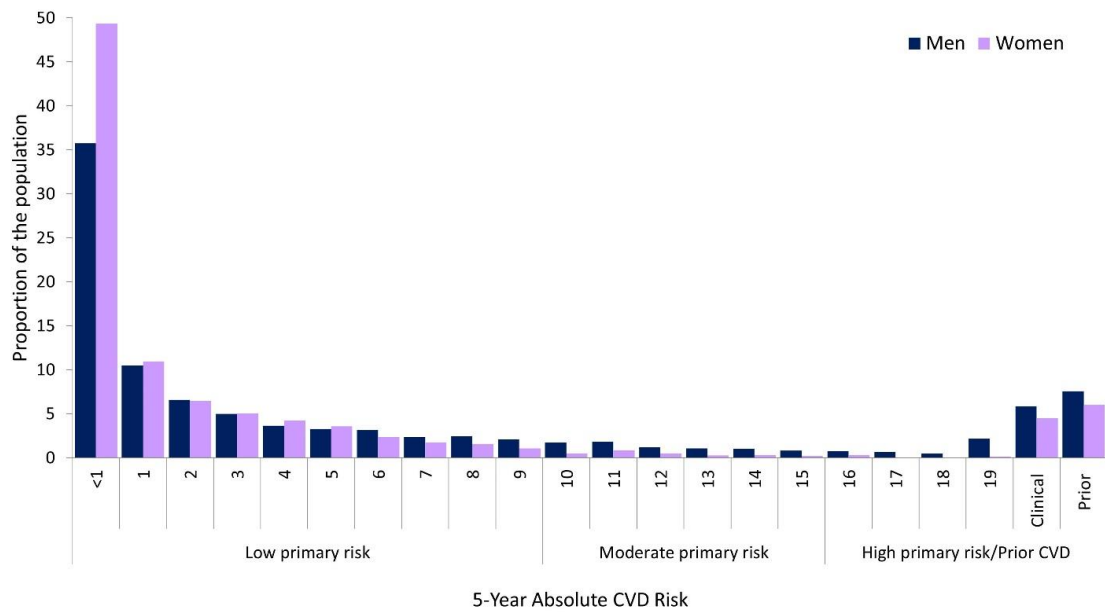


Figure S5. Estimated distribution of 5-year absolute CVD risk, including clinically high risk and prior CVD, among the Australian population aged 18 years and over, by sex.