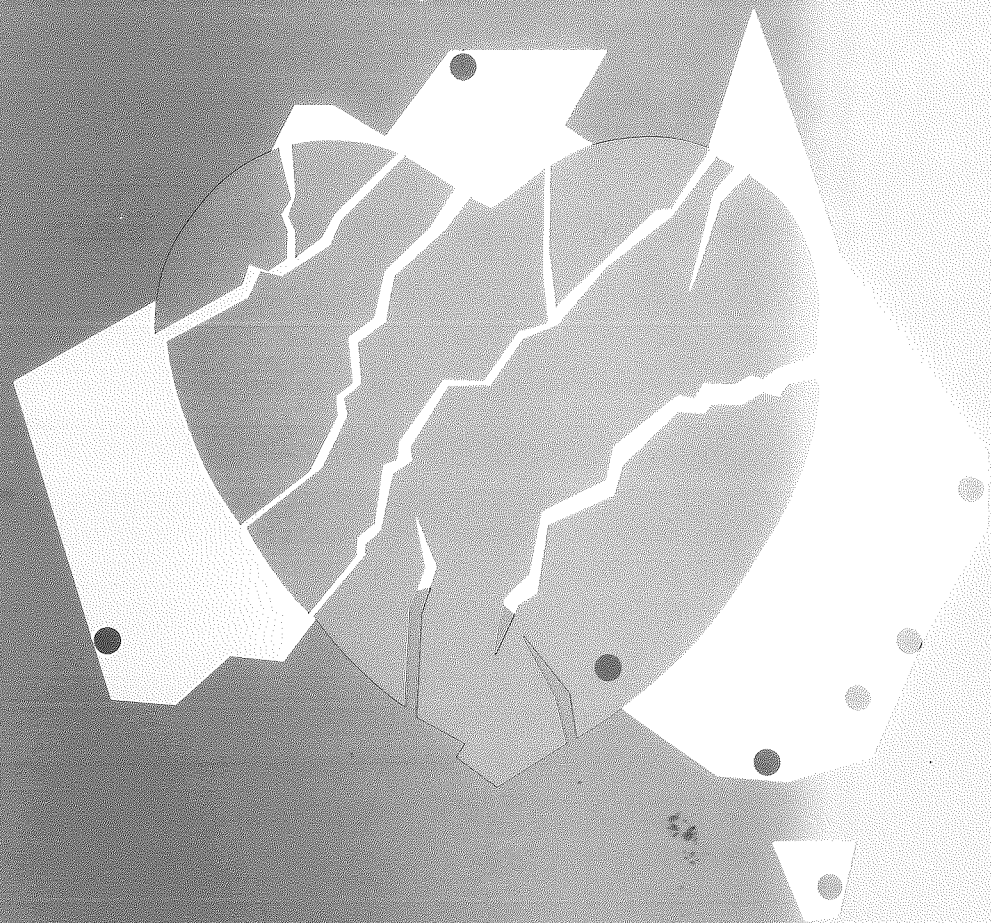


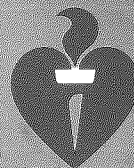
National Heart Foundation  
of Australia

# Risk Factor Prevalence Study

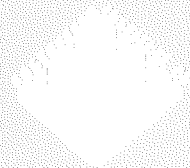
Survey No. 3 1989



## Cities Analysis



Heart  
Foundation



Australian Institute  
of Health

# Risk Factor Prevalence Study Survey No 3 1989

## CITIES ANALYSIS

National Heart Foundation of Australia  
and Australian Institute of Health

### Risk Factor Prevalence Study Cities Analysis

*PLEASE NOTE:* The estimates and ranking of smoking prevalence may be less reliable than those for some other national surveys. This could partly be due to our sampling method but we believe it is mainly because smokers in particular are often under-represented in surveys like the Prevalence Survey. We believe there is less likely to be under-representation for other risk factors measured.

We therefore suggest you use other national data sets like the Australian Bureau of Statistics National Health Survey for city comparisons of smoking rates.

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It is my special pleasure to introduce this fourth report of the national Risk Factor Prevalence Study.

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Since the Heart Foundation began the first of its national profiles of the health of Australians back in 1980, the Prevalence Study has broken new ground in scientific research and attracted international acclaim. The 1980 and 1983 surveys showed that heart disease risk factors such as high blood cholesterol, smoking and high blood pressure were very common among men and women in our capital cities — in some cases disturbingly so. The early reports inspired other research and were widely used for planning by State and Commonwealth health authorities and by the Heart Foundation itself. The report from the latest survey in 1989 confirmed that risk factor levels remain high.

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All three surveys are the basis for an important in-progress study to monitor changes in risk factor levels over time. This research is vital because it may help explain why the Australian death rates from heart disease are falling so fast.

But another aim of the Prevalence Study is to see if the level of risk factors varies from city to city. This question is also important because there are significant geographic differences in heart disease death rates in Australia. The 1980, 1983 and 1989 core reports sketched the national risk factor scene but this special 1989 'cities report', for the first time, separately profiles each city and compares the cities as well. It shows that city risk factor levels do indeed vary considerably. The next big question is how far this variation in levels matches the differences in city death rates.

One of the main challenges from the Prevalence Study has been to exploit fully the great wealth of data it has collected. For example, it should help to explain why heart disease is more likely to strike lower-income Australians and should assist our national campaigns to reach those groups at higher risk. This cities report is a step in that direction.

As Director of the Heart Foundation from 1980 until 1991 I have been proud of the Prevalence Study as one of the Foundation's best achievements. I have elsewhere thanked the many people who contributed to the Study, not least the thousands of Australians who agreed to be surveyed, the staff in the survey centres, and the Study's Management Committee. I now want to pay particular tribute to the Australian Institute of Health, especially Stan Bennett and Peter Wright, for their major contribution to this latest report.



**R.L. Hodge**

*Chairman, Risk Factor Prevalence Study  
Management Committee (1980 to April 1991)*

## Acknowledgements

The Management Committee for the Study (see Appendix A) thanks everybody who contributed to the survey and to the production of this report, particularly staff in the National and State Offices of the National Heart Foundation (NHF) and the Australian Institute of Health (AIH). A list of contributors was included in the acknowledgements for the main report and they are thanked again.

This cities analysis was written and produced by Stan Bennett, Peter Wright and John Berzins of the Australian Institute of Health, and Elizabeth Hall and Paul Magnus of the National Heart Foundation.

## Introduction

This report presents the levels of risk factors for coronary heart disease in the eight Australian capital cities based on data from the most recent Risk Factor Prevalence Survey. This survey was conducted between June and December 1989 and sampled adults aged 20 to 69 years. Over 9,000 people took part in the survey, a response rate of 75 per cent.

## City estimates

In Chapter 5, risk factor levels are presented for each capital city in turn. Estimates are given for 10 year age groups, separately for men and for women, and the overall estimate for each city is based upon the actual age distribution of that city. Although these overall levels are of interest in themselves their usefulness for comparing cities is limited because the cities have different age structures. Since risk factors are associated with age, overall city estimates will reflect the age structure of that city.

## City comparisons

The estimates in Chapter 4 allow for the age effect mentioned above. In this chapter, overall risk factor levels have been calculated for each city adjusted to a standard population; namely the World Standard Population. Each risk factor is considered independently and the age standardised estimates for each city are compared with each other.

## Summary of results

The summary of results (pages 2-5) compares the overall risk factor profiles of each city. It pulls together the age standardised estimates of prevalence of hypertension, raised cholesterol, cigarette smoking, overweight and obesity, and no exercise, and ranks each city relative to the other cities for each of these risk factors.

Finally, the ranks for each city have been summed across the five risk factors to give a simple summary measure of the city's risk factor profile. This total rank is a relative measure and does not necessarily reflect the 'healthiness' of each city. It arbitrarily gives equal weight to each of the five risk factors and partially takes into account the size of the differences between cities. Several different methods of producing a summary risk factor measure were tested and the results for each were very similar.

Overall, the cities with the better risk factor profiles are Canberra, Sydney and Perth (women). The worse risk factor profiles are found in Adelaide and Hobart.



## Summary

### City risk factor profiles for men

- Sydney** has the lowest prevalence of overweight or obese men, ranks well on cigarette smoking and does not rank poorly on any of the other risk factors.
- Melbourne** has the lowest prevalence of raised cholesterol and ranks well on cigarette smoking. Melbourne men have the highest prevalence of hypertensives and rank poorly on exercise participation during leisure time.
- Brisbane** has the lowest prevalence of cigarette smoking but ranks poorly on raised cholesterol.
- Adelaide** does not rank well on any risk factor, has the highest prevalence of overweight or obese men, and men who do not exercise during leisure time.
- Perth** has a relatively low prevalence of hypertensives and men who do not exercise during leisure time.
- Hobart** ranks well on exercise participation but has the highest prevalence of raised cholesterol and ranks poorly on cigarette smoking.
- Darwin** has the lowest prevalence of hypertensives and ranks well on raised cholesterol and overweight or obesity. Darwin men reported the highest prevalence of cigarette smoking.
- Canberra** has the highest prevalence of exercise participation during leisure time, ranks well on cigarette smoking and raised cholesterol. Canberra men do not rank poorly on any risk factor.

Overall, the better risk factor profiles for men are found in Canberra and Sydney, the worse in Adelaide and Hobart.

**Table 1. Prevalence, prevalence ratio and rank for each risk factor, men**

Risk factor	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
<b>Prevalence (a) (%)</b>								
Hypertensives	16.3	20.4	18.3	17.9	13.3	14.5	10.4	17.7
Raised cholesterol	48.5	42.1	53.4	48.1	49.9	59.6	45.4	45.8
Cigarette smokers	23.9	23.7	19.7	27.7	27.5	29.0	36.5	23.4
Overweight or obese	44.7	53.8	49.4	55.1	49.9	53.4	46.8	50.0
No exercise	26.7	27.1	26.0	28.6	25.2	25.2	26.6	20.9
<b>Prevalence ratio (b)</b>								
Hypertensives	1.57	1.96	1.76	1.72	1.28	1.39	1.00	1.70
Raised cholesterol	1.15	1.00	1.27	1.14	1.19	1.42	1.08	1.09
Cigarette smokers	1.21	1.20	1.00	1.41	1.40	1.47	1.85	1.19
Overweight or obese	1.00	1.20	1.11	1.23	1.12	1.19	1.05	1.12
No exercise	1.28	1.30	1.24	1.37	1.21	1.21	1.27	1.00
<b>Rank (c)</b>								
Hypertensives	4	8	5=	5=	2	3	1	5=
Raised cholesterol	4=	1	7	4=	6	8	2=	2=
Cigarette smokers	2=	2=	1	5=	5=	7	8	2=
Overweight or obese	1	6=	3=	8	3=	6=	2	3=
No exercise	5=	7	4	8	2=	2=	5=	1
<b>Total rank</b>	<b>16</b>	<b>24</b>	<b>20</b>	<b>30</b>	<b>18</b>	<b>26</b>	<b>18</b>	<b>13</b>
<b>Overall rank</b>	<b>2</b>	<b>6</b>	<b>5</b>	<b>8</b>	<b>3=</b>	<b>7</b>	<b>3=</b>	<b>1</b>

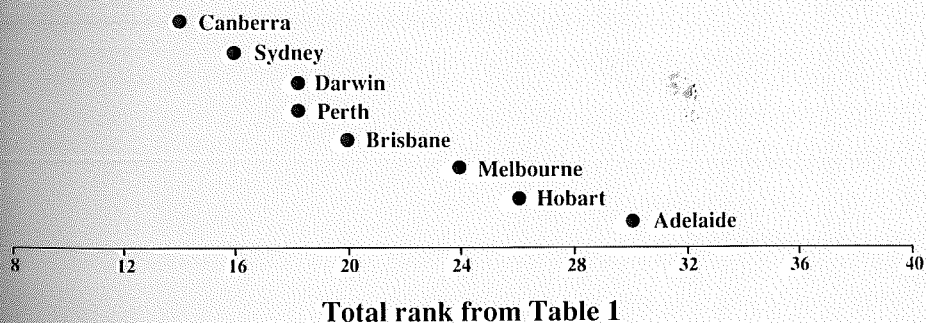
a) Age standardised over the range 20-69 years.

b) Ratio of prevalence to minimum prevalence.

c) For each risk factor, cities have been ranked from 1=lowest prevalence to 8=highest prevalence. Equal rank has been given when prevalence estimates are relatively close.

Note: Definitions for these risk factors are given in subsequent chapters.

**Figure 1. Cities ordered by total risk factor rank for men**



## Summary

### City risk factor profiles for women

- Sydney** has the highest prevalence of exercise participation during leisure time (along with Canberra) and ranks well on overweight or obesity. Sydney women do not rank especially badly on any risk factor.
- Melbourne** has a relatively low prevalence of women with raised cholesterol and the equal highest prevalence of overweight or obesity. It does not rank especially well on any of the other risk factors.
- Brisbane** has the lowest prevalence of cigarette smoking but a relatively high prevalence of hypertensives, raised cholesterol and women who do not exercise during leisure time.
- Adelaide** does not rank well on any risk factor and has the equal highest prevalence of overweight or obese women.
- Perth** has the lowest prevalence of hypertensives and does not rank especially badly on any risk factor.
- Hobart** has the highest prevalence of raised cholesterol and cigarette smoking and a relatively high prevalence of hypertensives.
- Darwin** has the lowest prevalence of raised cholesterol and overweight or obesity and a relatively low proportion of hypertensives. It has the highest prevalence of women who do not exercise during leisure time. The prevalence of cigarette smokers is also relatively high.
- Canberra** has a relatively high prevalence of exercise participation, along with Sydney, and a relatively low proportion of hypertensives and cigarette smokers. Canberra women do not rank especially badly on any risk factor.

Overall, the better risk factor profiles for women are found in Canberra, Sydney and Perth, the worse in Hobart and Adelaide.

**Table 2. Prevalence, prevalence ratio and rank for each risk factor, women**

Risk factor	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
<b>Prevalence (a) (%)</b>								
Hypertensives	12.1	11.7	17.2	12.9	10.1	16.1	10.5	10.5
Raised cholesterol	41.1	37.3	47.6	45.8	40.7	53.4	35.5	41.1
Cigarette smokers	20.7	23.9	13.9	20.5	23.5	28.9	26.5	17.5
Overweight or obese	30.6	38.4	34.5	38.4	34.0	37.6	29.2	36.7
No exercise	24.3	29.1	31.0	28.7	28.3	27.8	35.4	24.7
<b>Prevalence ratio (b)</b>								
Hypertensives	1.20	1.15	1.70	1.28	1.00	1.59	1.04	1.04
Raised cholesterol	1.16	1.05	1.34	1.29	1.15	1.50	1.00	1.16
Cigarette smokers	1.49	1.72	1.00	1.47	1.69	2.08	1.91	1.26
Overweight or obese	1.05	1.32	1.18	1.32	1.16	1.29	1.00	1.26
No exercise	1.00	1.20	1.28	1.18	1.16	1.14	1.46	1.02
<b>Rank (c)</b>								
Hypertensives	5	4	8	6	1	7	2=	2=
Raised cholesterol	3=	2	7	6	3=	8	1	3=
Cigarette smokers	3=	5=	1	3=	5=	8	7	2
Overweight or obese	2	7=	3=	7=	3=	6	1	5
No exercise	1=	5=	7	5=	3=	3=	8	1=
<b>Total rank</b>	<b>14</b>	<b>23</b>	<b>26</b>	<b>27</b>	<b>15</b>	<b>32</b>	<b>19</b>	<b>13</b>
<b>Overall rank</b>	<b>2</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>3</b>	<b>8</b>	<b>4</b>	<b>1</b>

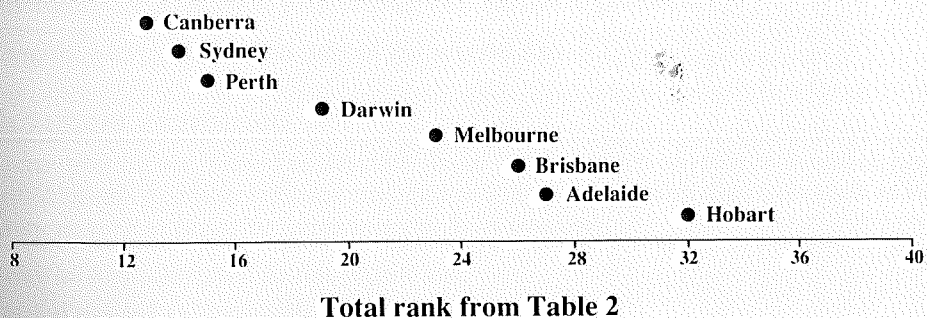
(a) Age standardised over the range 20-69 years.

(b) Ratio of prevalence to minimum prevalence.

(c) For each risk factor, cities have been ranked from 1=lowest prevalence to 8=highest prevalence. Equal rank has been given when prevalence estimates are relatively close.

Note: Definitions for these risk factors are given in subsequent chapters.

**Figure 2. Cities ordered by total risk factor rank for women**



## Background

Although heart and blood vessel disease is still the main cause of premature death in Australia, the death rates from heart attack have fallen dramatically since they peaked in 1966-67. This may have been due to improved medical factors such as cigarette smoking, high blood cholesterol and high blood pressure. Since these risk factors have long been an important focus of the Heart Foundation's public campaigns, and little was known about how common they were, the Foundation decided to begin the series of periodic nation-wide surveys which comprise the Risk Factor Prevalence Study.

The first two surveys, conducted in 1980 and 1983, covered a random sample of men and women aged 25-64 years and living in the State capital cities. Over 5,600 Australians participated in the 1980 survey and over 7,600 in 1983. The latest survey, conducted in 1989, covered a wider age-range of 20-69 years and included Canberra and Darwin for the first time. Over 9,300 Australians took part. For each survey a core report presented aggregate results providing a 'national' urban picture. About 63 per cent of Australians of all ages live in the State or Territory capital cities.

However, there is also a need to focus on the cities themselves as well as on the aggregate picture. This is because there are wide regional differences in the patterns of heart disease death rates. They are generally higher in Tasmania and the Eastern coast and lower in Western Australia and the Australian Capital Territory. This report therefore presents separate estimates of heart disease risk factor levels in each Australian capital city and examines the differences between those cities. It is the second report based on the 1989 Risk Factor Prevalence Survey and the first 'cities', as against 'national', report.

## Aims

The main aims of the Risk Factor Prevalence Study are:

- to determine the prevalence of cardiovascular risk factors in adult Australians living in State and Territory capital cities;
- to compare the prevalence of risk factors between regions and population groups and to correlate this prevalence with mortality from cardiovascular disease; and
- using repeated surveys, to assess the degree to which trends in cardiovascular disease mortality are associated with changes in risk factor prevalence.

This report addresses the first part of the second aim.

## Risk factors examined

The term 'risk factor' is used to describe those factors which have been found to increase the risk of ill health. For heart disease the term refers to early health disorders such as high blood pressure as well as life-style behaviours such as smoking.

The risk factors addressed in this report are:

- raised plasma cholesterol and triglyceride levels
- raised blood pressure
- cigarette smoking
- overweight and obesity
- physical inactivity

# I Introduction

Other variables which are associated with these risk factors have also been measured, such as alcohol intake and dietary behaviour related to saturated fat and salt consumption. Information on socio-economic factors associated with an increased risk of heart disease was also collected. The questionnaire is included as Appendix B.

## Uses of this report

This report addresses an important and growing need for regional health statistics. Geographical variation in risk factor levels is of interest to those involved in health promotion and education, and to epidemiologists and other researchers interested in the causes of cardiovascular disease. Regional patterns in risk factors may also suggest associations with regional variation in socio-economic status, diet, culture, climate and the environment. For these reasons this report includes an age standardised comparison of risk factors between cities.

Local health organisations need specific information on their own population so they can plan accordingly, especially if they are able to compare their levels and progress with those of other regions. This also generates more interest in the local community and the media which serves it. This report therefore provides each city with its own risk profile based on its own demographic characteristics.

The reasons behind the observed variation in risk factor levels between cities are likely to be complex and to depend upon many factors. In addition, risk factors are only one of the influences on cardiovascular death rates, along with medical care and ambulance services. *For these reasons no attempt has been made in this report to interpret the geographical distribution of risk factors observed or to draw conclusions.* It is hoped, however, that the analysis will inform discussion and stimulate activity to improve the risk factor profile of Australians.

### Sampling aspects

The survey methods have been described in detail in the main report of the 1989 survey.<sup>1</sup> A probability sample of adults aged 20-69 was selected from defined catchment areas within each of the eight State and Territory capital cities based on electoral roll information as at 31 December 1988 (see Appendix C).

The standard sample size was 1500 for each of the nine catchment areas (two areas in Sydney), although some variation occurred to accommodate local requirements. The standard size was based on accuracy and power considerations for cross-sectional and temporal comparisons.

### Survey operations

In Sydney North, centres were set up at Turramurra, Manly and North Ryde, and in Sydney South a clinic was run from Concord Hospital. Melbourne conducted the survey from 8 satellite centres and in Brisbane the survey centre was established in Fortitude Valley, close to the Divisional Office. In Adelaide, Hobart, Darwin and Canberra, the survey was conducted from the National Heart Foundation's Divisional offices and in Perth from the Royal Perth Hospital. Pilot tests were held in Melbourne and Brisbane to assess the design and operation of the survey. Data collection extended from June to December 1989.

About two weeks in advance, prospective participants were mailed invitations with a specific appointment time to attend for a free check of heart disease risk factors. Instructions for 12 hour fasting and other preparation were included. Where possible, a reminder telephone call was made the day before the appointment and those failing to attend were approached again by telephone or mail. Every effort was made to encourage attendance by using follow-up telephone calls, reminder letters, home visits, opening outside normal working hours and establishing temporary clinics in areas of high non-response.

Those attending completed a self-administered questionnaire (Appendix B) about tobacco, alcohol and exercise habits, history of heart related problems, and socio-demographic information including country of birth, education level, marital status and income. The questionnaire was checked and coded in the presence of the participant. A nursing sister then measured the participant's height and weight without footwear and in light street clothing. Waist and hip circumferences were measured twice with belts or sashes removed. Two seated systolic and diastolic phase V blood pressure readings were taken from the right arm, five minutes apart. Normal mercury sphygmomanometers and standard cuffs were used except where large or small cuffs were needed. Venepuncture followed with participants seated. After local centrifugation and cold storage, blood specimens were sent in insulated foam containers with freezer packs to the Institute of Medical and Veterinary Science in Adelaide. Plasma total cholesterol, triglyceride and HDL were measured on an Olympus Reply Automated Chemistry Analyser. The analysis met the standards of the USA Centres for Disease Control Standardisation Programme.

Participants were later mailed their results and advised to check with their doctor any result that exceeded desirable levels. Where requested by the participant, a copy of the results was sent with a covering letter to the nominated family doctor.

## 2 Survey methods

Procedures were standardised and every effort was made to promote uniform methods between survey centres. A procedures manual was distributed to all centres, and before data collection all centres were visited by the Study Director and Operations Manager to familiarise staff with the study protocol and train them in measuring techniques. Adherence to the study protocol was monitored once data collection began. Questionnaires and blood analysis forms were sent to the Australian Institute of Health for processing and analysis. Regular contact was maintained with each centre.

1. Risk Factor Prevalence Study Management Committee *Risk Factor Prevalence Study: Survey No 3 1989* Canberra: National Heart Foundation of Australia and Australian Institute of Health, 1990.



### 3 Analysis of this report

The results for cities are presented in two ways in this report. First, age standardised risk factor levels are compared between cities; and second, estimates are given for each city based upon the demographic characteristics of that city.

#### City comparisons

Chapter 4 compares estimates of risk factor levels between cities across the age range 20-69 years. These estimates have been 'age standardised'; that is, adjusted for differences in the age distribution of the various cities. This is important because most risk factors depend strongly on age and, without this adjustment, differences in risk factor levels will also reflect differences in age distributions between cities. The adjustment eliminates this age effect by basing the estimates for each city on a standard population distribution.

Age standardised estimates have been produced for each city using the World Standard Population as the common standard population. It was chosen in preference to the European Standard Population because it is closer to the Australian population distribution over the age range of the 1989 survey and is used by the National Heart Foundation in its mortality analyses. It applies equally to men and women.

<i>Age (years)</i>	<i>World Standard Population</i>
20-29	16,000
30-39	12,000
40-49	12,000
50-59	9,000
60-69	7,000
<b>Total</b>	<b>56,000</b>

Source: World Health Organization

Thus, age standardised estimates have been based on weights of 16/56, 12/56, 12/56, 9/56 and 7/56 for the age groups 20-29, 30-39, 40-49, 50-59 and 60-69 respectively.

#### City estimates

Chapter 5 presents estimates of risk factor levels separately for each capital city based upon the demographic characteristics of that city. For each city, the sample has been formed into 20 post-strata defined by sex, age group and country of birth, as follows.

<i>Variable</i>	<i>No. of strata</i>	<i>Description</i>
Sex	2	Men and women
Age	5	10-year age groups
Country of birth	2	Australasia (a) and overseas born

(a) Australia and New Zealand.

### 3 Analysis of this report

Strata estimates have then been combined to form city estimates using weights which reflect the demographic profile of each city. These weights were calculated from the 1988 age-sex distribution of each capital city statistical division as estimated by the Australian Bureau of Statistics, and from the 1986 Population Census estimates of persons born overseas (see Appendix D).

The formulas used for calculating estimates of total, average and percentage for the variables collected in the survey have been detailed in reports of the 1980 and 1983 surveys and are equivalent to calculating weighted estimates. An example of the weights used to derive estimates is given in Appendix D. Weights were recalculated for estimates based on sub-sets of the sample; for example, blood chemistry estimates were based on data for fasting respondents only.

#### Statistical caveats

Differences in age standardised or age-specific estimates between cities have several sources that are not directly the result of differences in risk factor levels.

- (a) Overall, 25 per cent of those selected and eligible to take part in this survey declined to do so and this proportion varied between cities. If non-respondents differ from respondents with respect to the risk factors under study, then estimates will be affected by non-response bias. The magnitude of this effect is unknown and if it differs between cities it will confuse inter-city comparisons.
- (b) Some differences between cities will have arisen purely by chance simply because each city's estimates are based on a sample survey. In this regard standard errors of estimates and 95 per cent confidence intervals have been estimated where appropriate.
- (c) Although every effort was made to standardise collection methods between cities the possibility that the comparison between cities has been affected by differences in local collection methods cannot be completely discounted.
- (d) Differences in risk factor levels between cities may still partly reflect differences in the demographic structure of each city apart from age; for example, the ethnic distribution.

All these aspects require careful consideration and assessment when drawing any conclusions from differences between city estimates.

Finally, the purpose of this report is to provide and compare individual city data. Results for all cities combined may be found in the main report of the 1989 survey.

## 4 City comparisons

### Introduction

This chapter presents age standardised risk factor estimates for each city based on the WHO World Population for the age range 20-69. Data presentation for each risk factor comprises:

- age standardised estimates of average (mean and median), dispersion (10th and 90th centiles) and the standard error of the mean;
- the number of cases on which the estimates are based;
- median estimates or percentages ranked by city for men and women; and
- a figure showing mean estimates (or percentages) for each city together with 95% confidence intervals.

### Response analysis

The standard sample size was 1,500 in each catchment area. Adelaide required an initial sample size of 3,000 to satisfy the needs of a related study conducted by the South Australian Department of Health. The Darwin sample was increased slightly (by 164) to include the additional area of Palmerston.

A total of 15,164 people were selected from the electoral rolls. Of these, 2,694 were either no longer living at the address, were outside the study area for the duration of the study, were in prison or had died. These were considered as ineligible. Of the 12,470 potential respondents, over 9,300 of these actually participated in the survey, giving an overall response rate of 74.7 per cent. Response rates for each centre are given below. The better response rates were observed in Darwin (89%) and Hobart (83%). Sydney South (61%) had the lowest.

### Response rates by centre

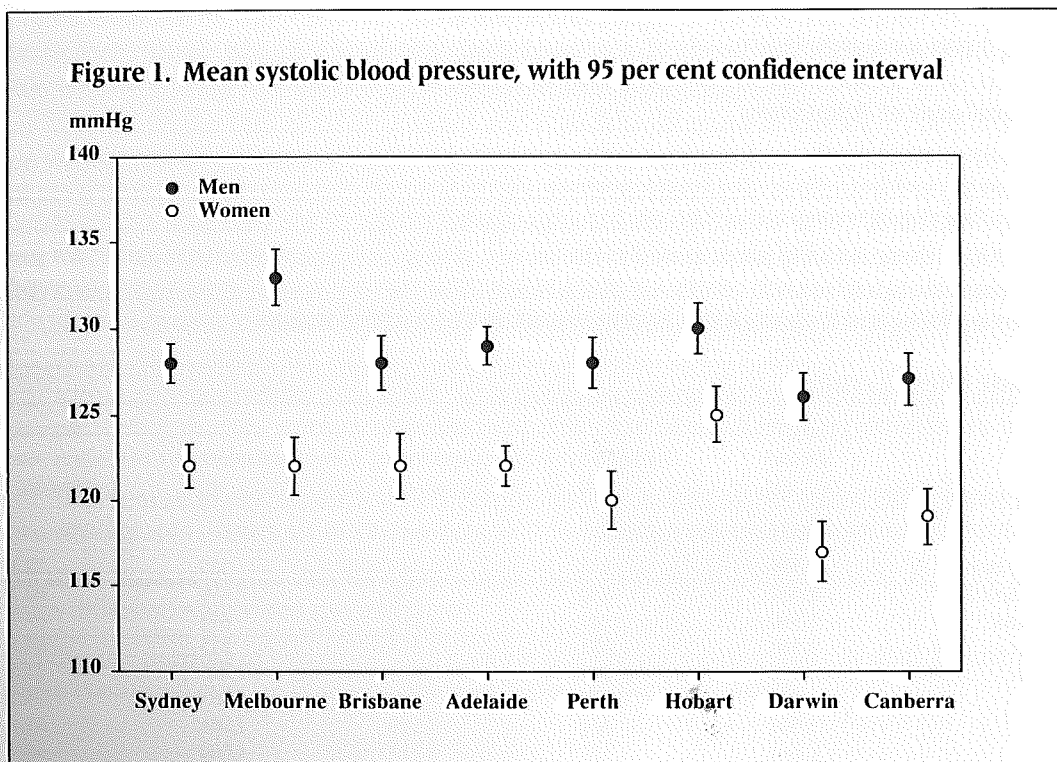
Centre	Sample selected (a) (Number)	Ineligible (b) (Number)	Potential respondents (c)=(a)-(b) (Number)	Respondents (d) (Number)	Response rate (e)=(d)/(c) (Per cent)
Sydney North	1,500	234	1,266	985	77.8
Sydney South	1,500	350	1,150	698	60.7
Melbourne	1,500	284	1,216	848	69.7
Brisbane	1,500	285	1,215	815	67.1
Adelaide	3,000	342	2,658	1,935	72.8
Perth	1,500	211	1,289	963	74.7
Hobart	1,500	201	1,299	1,084	83.4
Darwin	1,664	537	1,127	1,000	88.7
Canberra	1,500	250	1,250	981	78.5

# Systolic blood pressure

## Comments

Figure 1 clearly illustrates that men have higher systolic blood pressure levels on average than women, for each city.

After allowing for age, mean systolic blood pressure was highest for men in Melbourne and for women in Hobart. Lowest systolic blood pressures were found in men and women in Darwin.



## City comparisons

**Table 1. Systolic blood pressure**

<i>Systolic blood pressure (a)</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>
	<i>(mmHg)</i>							
<b>Men</b>								
Mean	127.8	132.5	128.2	128.7	127.6	129.9	125.6	127.0
10th centile	109.0	112.0	109.0	110.0	111.0	111.0	110.0	110.0
Median	128.0	133.0	128.0	128.0	125.0	128.0	122.0	125.0
90th centile	148.0	153.0	151.0	151.0	147.0	152.0	146.0	150.0
Standard error of mean	0.59	0.83	0.80	0.53	0.74	0.72	0.67	0.74
Number of cases	813	423	384	944	483	523	491	491
	<i>(mmHg)</i>							
<b>Women</b>								
Mean	122.3	122.1	122.1	121.7	119.7	124.5	117.2	119.3
10th centile	104.0	105.0	102.0	103.0	101.0	104.0	100.0	100.0
Median	122.0	123.0	119.0	120.0	117.0	123.0	110.0	116.0
90th centile	147.0	145.0	149.0	145.0	145.0	152.0	144.0	141.0
Standard error of mean	0.61	0.82	0.95	0.58	0.82	0.80	0.86	0.79
Number of cases	869	421	431	967	480	560	509	490

(a) The average of two readings taken 5 minutes apart.

**Table 2. Median systolic blood pressure, ranked**

<i>Men</i>	<i>Median</i>	<i>Women</i>	<i>Median</i>
	<i>(mmHg)</i>		<i>(mmHg)</i>
Darwin	122	Darwin	110
Perth	125	Canberra	116
Canberra	125	Perth	117
Sydney	128	Brisbane	119
Brisbane	128	Adelaide	120
Adelaide	128	Sydney	122
Hobart	128	Melbourne	123
Melbourne	133	Hobart	123

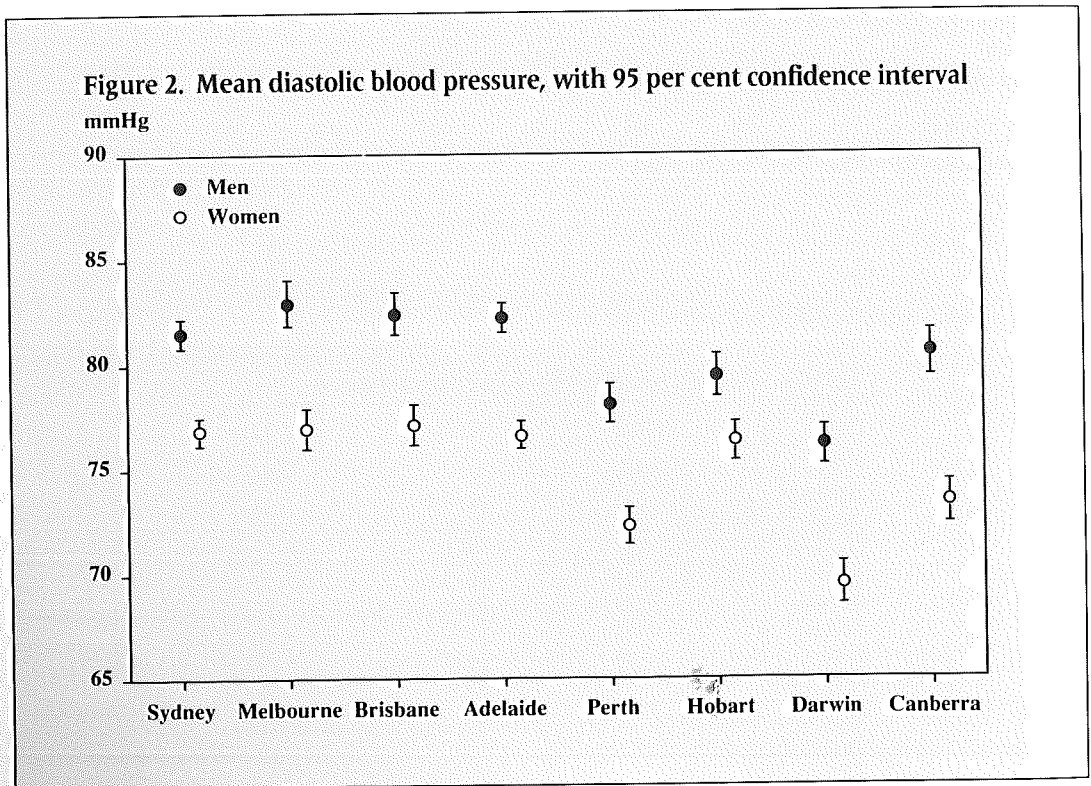
Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

## Diastolic blood pressure

### Comments

Figure 2 demonstrates the same pattern for diastolic blood pressure as was found for systolic blood pressure, that for each city, average levels are higher for men than for women.

Again, as for systolic blood pressure, mean and median diastolic blood pressures were lowest in Darwin for both men and women. Average levels were higher in Sydney, Melbourne, Brisbane and Adelaide.



## City comparisons

**Table 3. Diastolic blood pressure**

<i>Diastolic blood pressure (a)</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>
	<i>(mmHg)</i>							
<b>Men</b>								
Mean	81.5	82.9	82.4	82.2	78.1	79.4	76.1	80.5
10th centile	70.0	70.0	70.0	70.0	66.0	66.0	62.0	66.0
Median	82.0	83.0	83.0	82.0	79.0	81.0	76.0	80.0
90th centile	94.0	97.0	96.0	95.0	90.0	94.0	90.0	96.0
Standard error of mean	0.35	0.55	0.52	0.34	0.47	0.51	0.47	0.54
<b>Number of cases</b>	<b>813</b>	<b>423</b>	<b>384</b>	<b>944</b>	<b>483</b>	<b>523</b>	<b>491</b>	<b>491</b>
	<i>(mmHg)</i>							
<b>Women</b>								
Mean	76.8	76.9	77.1	76.6	72.3	76.3	69.5	73.4
10th centile	64.0	65.0	64.0	64.0	61.0	62.0	56.0	60.0
Median	78.0	79.0	77.0	77.0	73.0	76.0	69.0	73.0
90th centile	90.0	89.0	92.0	89.0	85.0	90.0	86.0	88.0
Standard error of mean	0.34	0.48	0.50	0.32	0.45	0.46	0.51	0.50
<b>Number of cases</b>	<b>869</b>	<b>421</b>	<b>431</b>	<b>967</b>	<b>480</b>	<b>560</b>	<b>509</b>	<b>490</b>

(a) The average of two readings taken 5 minutes apart.

**Table 4. Median diastolic blood pressure, ranked**

<i>Men</i>	<i>Median</i>	<i>Women</i>	<i>Median</i>
	<i>(mmHg)</i>		<i>(mmHg)</i>
Darwin	76	Darwin	69
Perth	79	Canberra	73
Canberra	80	Perth	73
Hobart	81	Hobart	76
Sydney	82	Brisbane	77
Adelaide	82	Adelaide	77
Melbourne	83	Sydney	78
Brisbane	83	Melbourne	79

Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

# Hypertension

## Comments

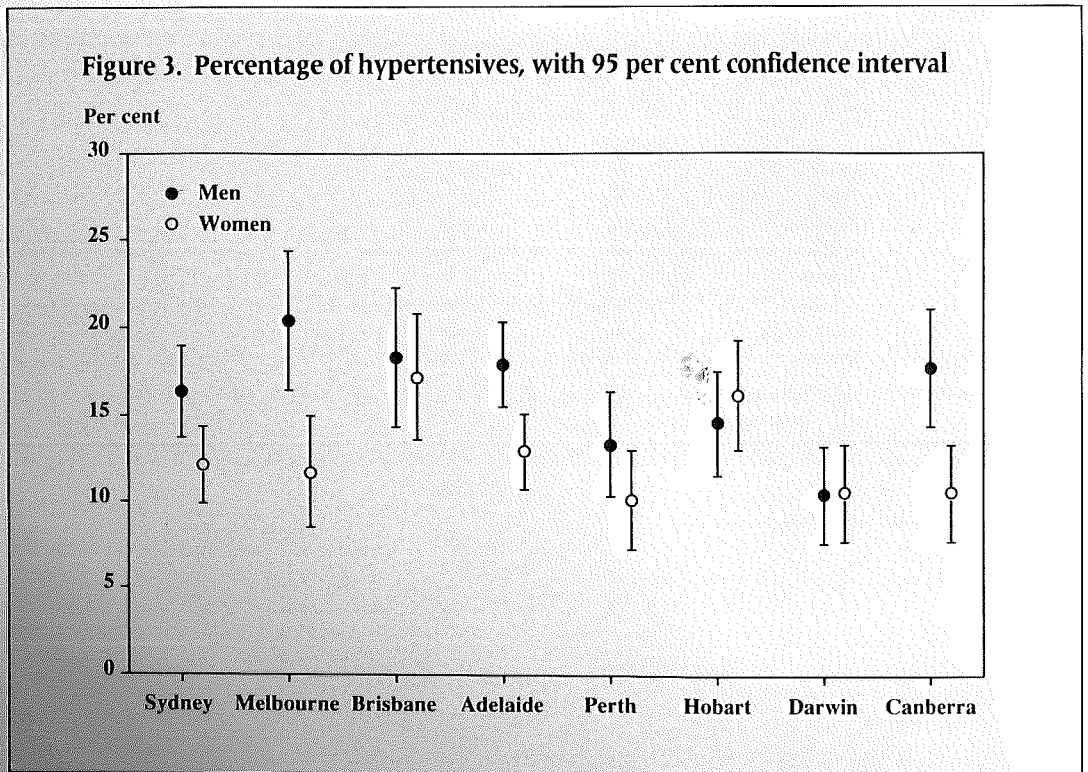
Along with the preceding section on systolic blood pressure, Figure 3 illustrates the association between the level of systolic blood pressure within a city and the proportion of hypertensives (defined in Table 5).

For example, men in Darwin had the lowest systolic blood pressure, on average, and the lowest proportion of hypertensives (10.4%). Melbourne ranks highest on both measures and had the highest proportion of untreated hypertensives (11.7%). For women, the cities with the lower mean systolic blood pressures (Darwin, Canberra and Perth) had the lower prevalences of hypertension (10.1% to 10.5%).

The picture is not simple, however. Figure 1 showed a clear separation between men and women for each city in mean systolic blood pressure, but there is not the same separation between men and women in the proportion of hypertensives for Hobart, Darwin or Brisbane (Figure 3).

As well as the lowest proportion of hypertensives, Darwin also had the lowest proportion of male hypertensives who were treated but uncontrolled (0.9%, Table 5). This represents 8.6% of total hypertensives. Treated uncontrolled hypertensives, as a proportion of hypertensives, varied from 17.9% to 23.7% in other cities.

Across all cities men were less likely to have had their hypertension detected than women. Untreated hypertensives, as a proportion of total hypertensives, varied between cities from 44% to 59% for men and from 24% to 34% for women.





## City comparisons

**Table 5. Hypertension**

<i>Hypertension</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>
	<i>(Per cent)</i>							
<b>Men</b>								
<b>Hypertensives</b>								
Controlled (a)	4.3	4.9	3.7	5.2	4.7	3.8	3.3	3.4
Treated, uncontrolled (b)	3.8	3.8	3.9	3.2	2.8	2.9	0.9	4.2
Untreated (c)	8.2	11.7	10.8	9.5	5.9	7.8	6.1	10.2
Total hypertensives	16.3	20.4	18.3	17.9	13.3	14.5	10.4	17.7
Normotensives (d)	83.7	79.6	81.7	82.1	86.7	85.5	89.6	82.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>813</b>	<b>423</b>	<b>384</b>	<b>944</b>	<b>483</b>	<b>523</b>	<b>491</b>	<b>491</b>
	<i>(Per cent)</i>							
<b>Women</b>								
<b>Hypertensives</b>								
Controlled (a)	5.6	5.8	7.1	6.8	5.6	8.0	5.8	4.8
Treated, uncontrolled (b)	2.4	2.3	4.4	2.1	2.1	3.1	1.7	2.3
Untreated (c)	4.1	3.5	5.7	4.0	2.4	5.0	3.0	3.5
Total hypertensives	12.1	11.7	17.2	12.9	10.1	16.1	10.5	10.5
Normotensives (d)	87.9	88.3	82.8	87.1	89.9	83.9	89.5	89.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>869</b>	<b>421</b>	<b>431</b>	<b>967</b>	<b>480</b>	<b>560</b>	<b>509</b>	<b>490</b>

(a) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

(b) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(c) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(d) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

**Table 6. Percentage of hypertensives, ranked**

<i>Men</i>		<i>Women</i>	
	<i>(Per cent)</i>		<i>(Per cent)</i>
Darwin	10.4	Perth	10.1
Perth	13.3	Darwin	10.5
Hobart	14.5	Canberra	10.5
Sydney	16.3	Melbourne	11.7
Canberra	17.7	Sydney	12.1
Adelaide	17.9	Adelaide	12.9
Brisbane	18.3	Hobart	16.1
Melbourne	20.4	Brisbane	17.2

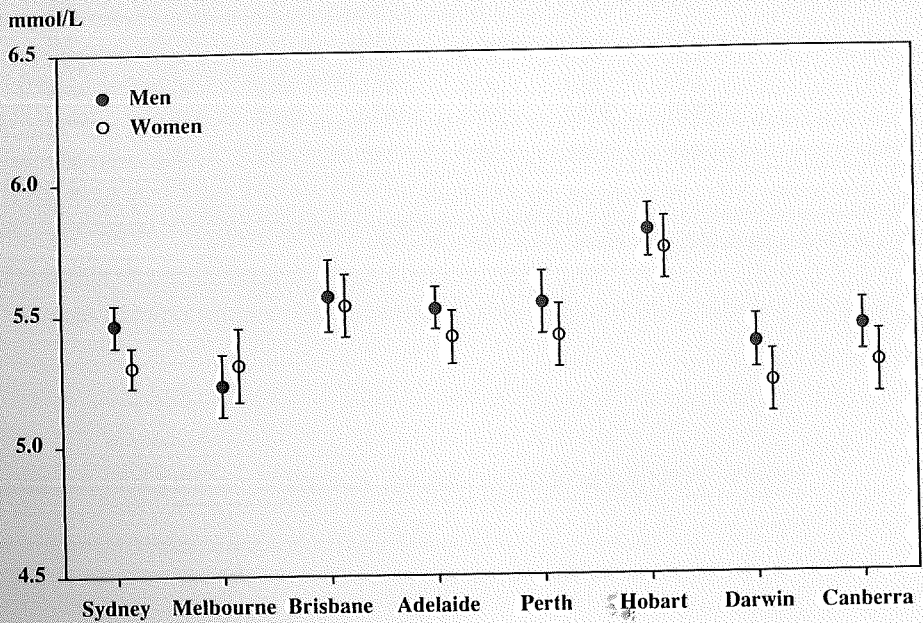
Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

# Plasma cholesterol

## Comments

Both measures of average cholesterol, the mean and median, were clearly higher in Hobart than in any other city. Levels were lower in Melbourne and in Darwin. In men, median cholesterol levels varied from 5.3mmol/L in Melbourne to 5.8mmol/L in Hobart. In women, the median ranged from 5.00mmol/L in Darwin to 5.8mmol/L in Hobart.

Figure 4. Mean plasma cholesterol, with 95 per cent confidence interval



**Table 7. Plasma cholesterol**

<i>Plasma cholesterol (a)</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>
	<i>(mmol/L)</i>							
<b>Men</b>								
Mean	5.46	5.23	5.57	5.52	5.54	5.81	5.38	5.44
10th centile	4.10	3.80	4.10	4.20	4.10	4.40	4.09	4.10
Median	5.50	5.34	5.60	5.58	5.60	5.79	5.38	5.40
90th centile	6.80	6.76	6.91	6.86	7.00	7.29	6.80	6.90
Standard error of mean	0.04	0.06	0.07	0.04	0.06	0.05	0.05	0.05
Number of cases	768	340	296	806	448	462	483	446
	<i>(mmol/L)</i>							
<b>Women (b)</b>								
Mean	5.30	5.31	5.53	5.41	5.41	5.74	5.23	5.30
10th centile	3.96	3.86	4.30	4.00	4.10	4.22	3.97	3.96
Median	5.40	5.29	5.63	5.63	5.43	5.80	5.00	5.34
90th centile	6.81	6.90	6.90	6.97	6.91	7.51	6.72	6.80
Standard error of mean	0.04	0.07	0.06	0.05	0.06	0.06	0.06	0.06
Number of cases	698	293	294	687	388	404	398	385

(a) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(b) Excludes women taking the oral contraceptive pill.

**Table 8. Medium plasma cholesterol, ranked**

<i>Men</i>	<i>Median</i>	<i>Women</i>	<i>Median</i>
	<i>(mmol/L)</i>		
Melbourne	5.34	Darwin	5.00
Darwin	5.38	Melbourne	5.29
Canberra	5.40	Canberra	5.34
Sydney	5.50	Sydney	5.40
Adelaide	5.58	Perth	5.43
Brisbane	5.60	Brisbane	5.63
Perth	5.60	Adelaide	5.63
Hobart	5.79	Hobart	5.80

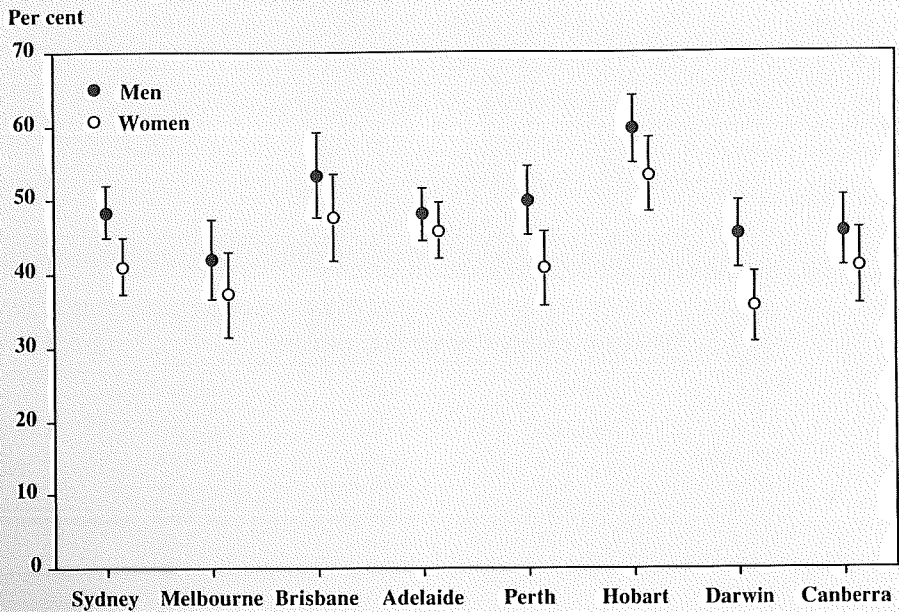
Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

## Plasma cholesterol, raised levels

### Comments

The pattern is similar to that for average plasma cholesterol levels. Hobart has the highest proportion of people with raised levels (60% of men and 53% of women had a reading of  $\geq 5.5$  mmol/L). This compares with 42% of men in Melbourne and 36% of women in Darwin.

Figure 5. Percentage with raised plasma cholesterol ( $\geq 5.5$  mmol/L), with 95 percent confidence interval



**Table 9. Plasma cholesterol, raised levels**

<i>Plasma cholesterol (a)</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>
	<i>(Per cent)</i>							
<b>Men</b>								
Cholesterol $\geq 5.5$ mmol/L	48.5	42.1	53.4	48.1	49.9	59.6	45.4	45.8
Cholesterol $\geq 6.5$ mmol/L	16.7	12.8	19.3	18.5	19.2	26.3	14.1	16.0
<b>Number of cases</b>	<b>768</b>	<b>340</b>	<b>296</b>	<b>806</b>	<b>448</b>	<b>462</b>	<b>483</b>	<b>446</b>
	<i>(Per cent)</i>							
<b>Women (b)</b>								
Cholesterol $\geq 5.5$ mmol/L	41.1	37.3	47.6	45.8	40.7	53.4	35.5	41.1
Cholesterol $\geq 6.5$ mmol/L	15.4	14.3	16.6	17.5	19.2	25.3	14.6	15.6
<b>Number of cases</b>	<b>698</b>	<b>293</b>	<b>294</b>	<b>687</b>	<b>388</b>	<b>404</b>	<b>398</b>	<b>385</b>

(a) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).  
 (b) Excludes women taking the oral contraceptive pill.

**Table 10. Percentage with raised plasma cholesterol, ranked**

<i>Men</i>	$\geq 5.5$ mmol/L	<i>Women</i>	$\geq 5.5$ mmol/L
	<i>(Per cent)</i>		<i>(Per cent)</i>
Melbourne	42.1	Darwin	35.5
Darwin	45.4	Melbourne	37.3
Canberra	45.8	Perth	40.7
Adelaide	48.1	Sydney	41.1
Sydney	48.5	Canberra	41.1
Perth	49.9	Adelaide	45.8
Brisbane	53.4	Brisbane	47.6
Hobart	59.6	Hobart	53.4

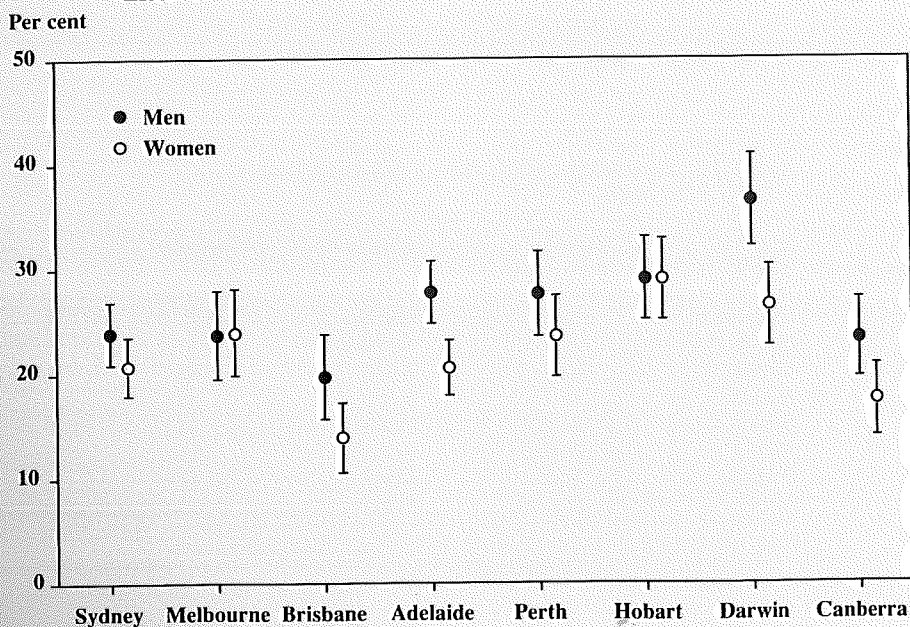
Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

# Smoking status

## Comments

Brisbane had the lowest proportion of smokers (20% of men and 14% of women) followed by Canberra. Smoking was most prevalent in Darwin (37% of men and 27% of women) and Hobart (29% of men and women).

Figure 6. Percentage of cigarette smokers, with 95 per cent confidence interval



## City comparisons

Table 11. Smoking status

Smoking status (a)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	(Per cent)							
<b>Men</b>								
Cigarette smoker (b)(c)	23.9	23.7	19.7	27.7	27.5	29.0	36.5	23.4
Cigar and/or pipe only	1.2	1.5	0.9	1.4	1.2	0.1	0.8	1.3
Ex-smokers	29.5	30.8	36.3	32.5	30.5	28.5	26.3	29.0
Never smoked regularly	45.4	44.0	42.9	38.4	40.8	42.4	35.9	46.3
Not stated	.	.	0.2	.	.	.	0.4	.
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>813</b>	<b>423</b>	<b>384</b>	<b>944</b>	<b>483</b>	<b>523</b>	<b>491</b>	<b>491</b>
	(Per cent)							
<b>Women</b>								
Cigarette smoker (b)(c)	20.7	23.9	13.9	20.5	23.5	28.9	26.5	17.5
Cigar and/or pipe only	0.2	.	0.2	.	.	.	0.1	.
Ex-smokers	19.8	21.0	17.5	19.6	18.9	18.0	17.4	20.4
Never smoked regularly	59.3	55.2	68.4	59.8	57.5	53.1	55.9	62.1
Not stated	.	.	.	0.1	.	.	.	.
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>869</b>	<b>421</b>	<b>431</b>	<b>967</b>	<b>480</b>	<b>560</b>	<b>509</b>	<b>490</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe.

(c) Includes persons who smoke hand-rolled cigarettes.

Table 12. Percentage of cigarette smokers, ranked

<i>Men</i>		<i>Women</i>	
	(Per cent)		(Per cent)
Brisbane	19.7	Brisbane	13.9
Canberra	23.4	Canberra	17.5
Melbourne	23.7	Adelaide	20.5
Sydney	23.9	Sydney	20.7
Perth	27.5	Perth	23.5
Adelaide	27.7	Melbourne	23.9
Hobart	29.0	Darwin	26.5
Darwin	36.5	Hobart	28.9

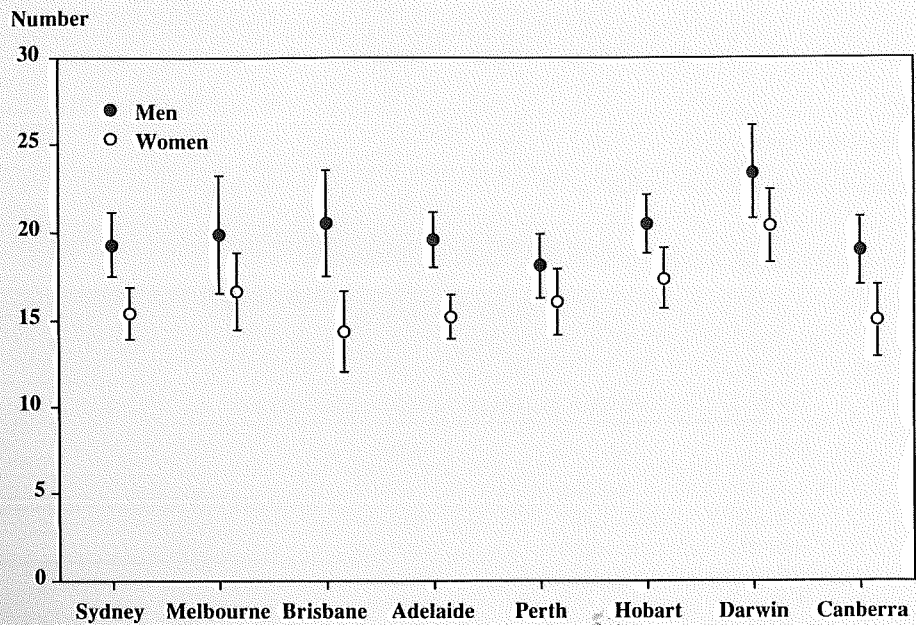
Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

# Daily consumption of manufactured cigarettes

## Comments

As well as a higher prevalence of cigarette smokers, Darwin also had the highest daily consumption among its smokers (a mean of 23 cigarettes for men and 20 for women). For all cities, the median reported daily consumption for men was 20 cigarettes, a common pack size.

Figure 7. Mean daily consumption of cigarettes, with 95 per cent confidence interval





**Table 13. Daily consumption of manufactured cigarettes**

Cigarettes a day (a)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	(Number)							
<b>Men</b>								
Mean	19.3	19.9	20.5	19.6	18.1	20.4	23.4	18.9
Median	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Standard error of mean	0.91	1.68	1.52	0.79	0.92	0.83	1.33	0.96
Number of cases	175	84	70	241	118	143	158	109
<b>Women</b>								
Mean	15.4	16.6	14.3	15.2	16.0	17.3	20.3	14.9
Median	15.0	15.0	13.0	15.0	15.0	20.0	20.0	15.0
Standard error of mean	0.73	1.11	1.17	0.63	0.97	0.86	1.04	1.03
Number of cases	176	90	54	191	106	159	132	79

(a) Current smokers of manufactured cigarettes.

**Table 14. Median daily consumption of cigarettes, ranked**

Men	Median	Women	Median
	(Number)		(Number)
Sydney	20	Brisbane	13
Melbourne	20	Sydney	15
Brisbane	20	Melbourne	15
Adelaide	20	Adelaide	15
Perth	20	Perth	15
Hobart	20	Canberra	15
Darwin	20	Hobart	20
Canberra	20	Darwin	20

Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

# Weight for height classification

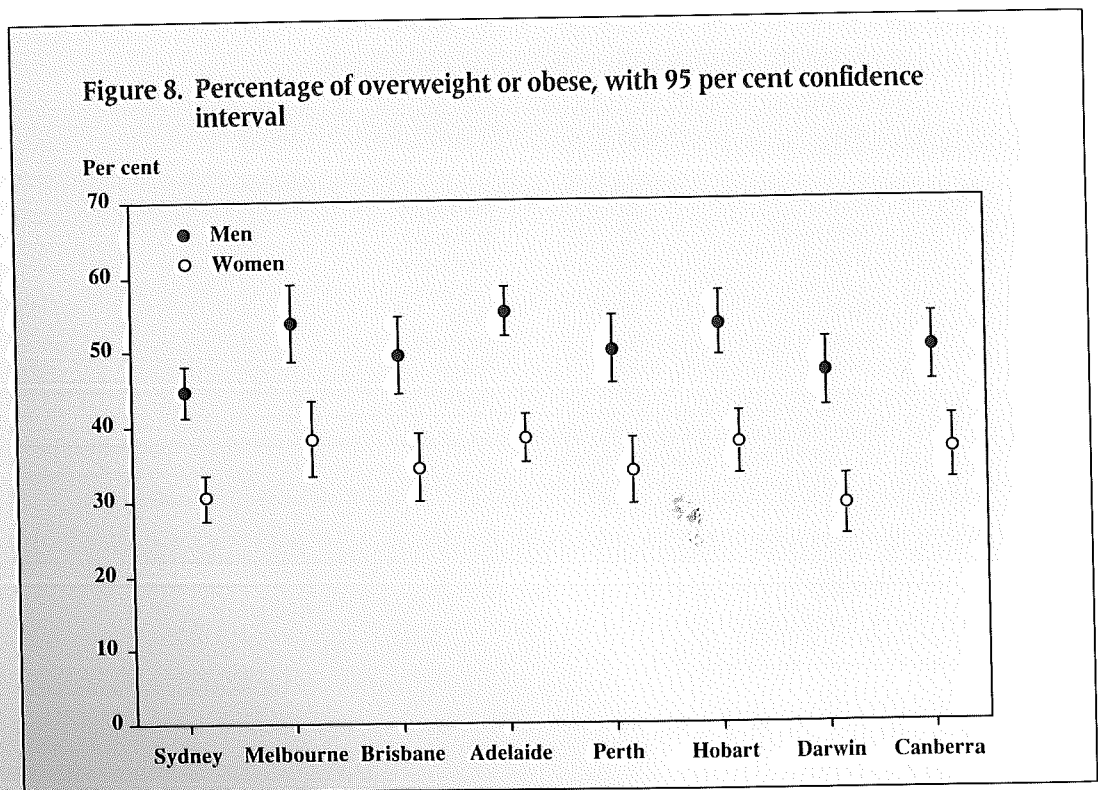
## Comments

A higher proportion of men than women was classified as overweight or obese for each city.

The difference between the cities with the highest and lowest prevalence of overweight or obese people was approximately ten percentage points. Overweight or obese people were more common in Adelaide, Melbourne and Hobart. Prevalence was lowest in Sydney and Darwin.

The prevalence of underweight women was highest in Sydney, Brisbane and Darwin (around 18%). The prevalence of underweight men was highest in Darwin and Brisbane (7%), and lowest in Canberra and Adelaide (3%).

Note: The high proportion of missing data in Melbourne (10%) is due to making home visits without scales to measure weight. In order to place the cities on a comparable basis the percentages in Figure 8 and Table 16 have been recalculated to exclude the 'not stated' category.





# Body mass index

## Comments

The comparison of cities by body mass index is similar to that by percentage overweight or obese. Body mass index was lower on average (mean and median) in Sydney and in Darwin. Median body mass index ranged from 24.8 to 25.5 in men, and from 22.7 to 24.2 in women.

Figure 9. Mean body mass index, with 95 per cent confidence interval



## City comparisons

**Table 17. Body mass index**

<i>Body mass index (a)</i>	<i>Sydney</i>	<i>Melbourne</i>	<i>Brisbane</i>	<i>Adelaide</i>	<i>Perth</i>	<i>Hobart</i>	<i>Darwin</i>	<i>Canberra</i>
	<i>(kg/m<sup>2</sup>)</i>							
<b>Men</b>								
Mean	24.9	25.8	25.1	25.8	25.8	25.8	25.0	25.4
10th centile	20.9	21.8	21.0	21.5	20.9	21.2	20.3	21.3
Median	24.8	25.5	25.2	25.5	25.3	25.5	24.8	25.1
90th centile	29.1	30.5	29.9	30.6	29.8	30.8	29.9	29.9
Standard error of mean	0.12	0.19	0.18	0.12	0.16	0.16	0.17	0.16
Number of cases	813	423	384	944	483	523	491	491
	<i>(kg/m<sup>2</sup>)</i>							
<b>Women (b)</b>								
Mean	23.9	24.8	24.0	24.9	24.2	24.7	23.7	24.5
10th centile	19.2	19.6	18.9	19.9	19.6	19.7	18.9	19.7
Median	23.1	24.2	23.5	24.0	23.5	23.9	22.7	23.7
90th centile	30.2	31.2	30.2	31.9	30.2	31.0	28.9	31.0
Standard error of mean	0.16	0.25	0.24	0.16	0.21	0.21	0.20	0.22
Number of cases	852	409	424	948	460	548	498	483

(a) BMI=Wt/Ht<sup>2</sup> (1 kg was deducted from the measured weight as allowance for weight of clothing).

(b) Excludes pregnant women.

**Table 18. Median body mass index, ranked**

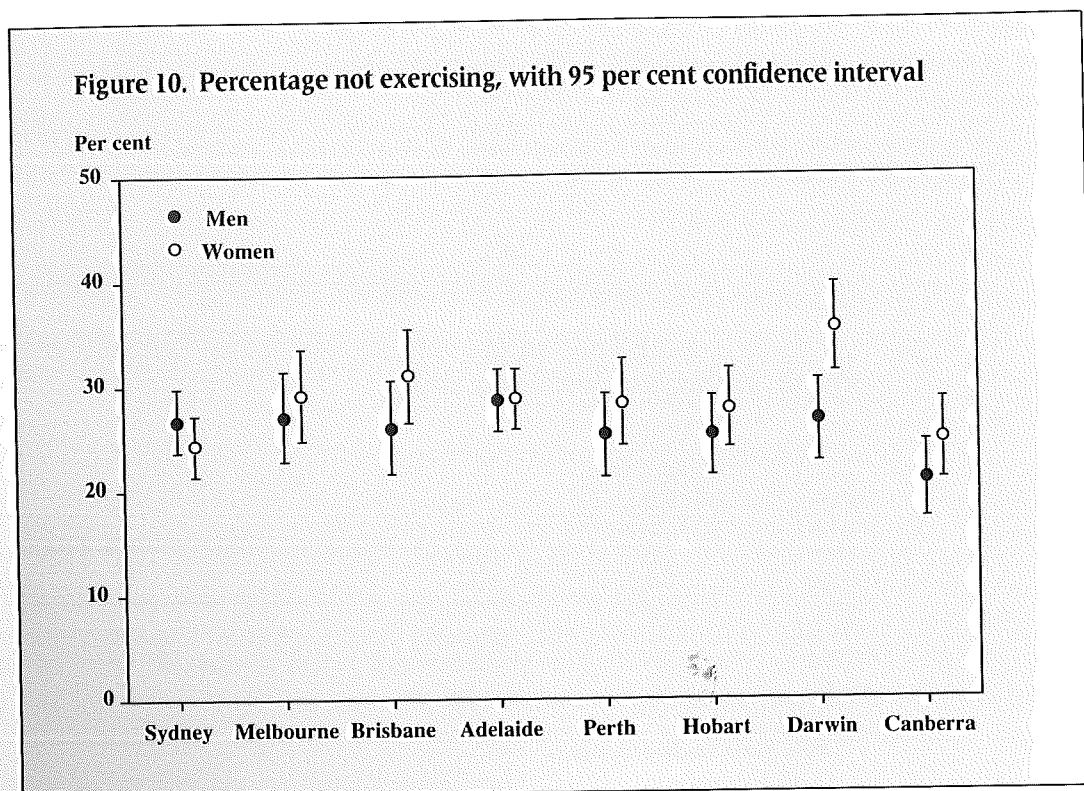
<i>Men</i>	<i>Median</i>	<i>Women</i>	<i>Median</i>
	<i>(kg/m<sup>2</sup>)</i>		<i>(kg/m<sup>2</sup>)</i>
Sydney	24.8	Darwin	22.7
Darwin	24.8	Sydney	23.1
Canberra	25.1	Brisbane	23.5
Brisbane	25.2	Perth	23.5
Perth	25.3	Canberra	23.7
Melbourne	25.5	Hobart	23.9
Adelaide	25.5	Adelaide	24.0
Hobart	25.5	Melbourne	24.2

Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

## Exercise during leisure time

### Comments

Exercise of some form during the two weeks before interview was most common in men living in Canberra (79%) and least common among Darwin women (65%). Regular vigorous exercise was more likely to be practised by people in Canberra (18% of men and 9% of women) and Darwin (17% of men and 10% of women) and was least popular in Sydney. Walking for recreation or exercise was practised most in Hobart (57% of men and 65% of women) and least in Darwin (43% of men and 48% of women).



## City comparisons

**Table 19. Exercise during leisure time**

Exercise (a)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
<i>(Per cent)</i>								
<b>Men</b>								
Vigorous exercise (b)								
Group 1 (c)	7.5	11.2	11.3	9.3	10.8	11.3	16.8	17.9
Group 2 (d)	28.4	28.0	24.6	25.5	27.1	24.3	21.5	28.6
Less vigorous exercise (e)	32.6	31.9	31.6	29.3	33.7	33.6	38.0	40.5
Walking	52.6	53.3	54.3	51.8	48.5	56.8	42.6	54.5
No exercise	26.7	27.1	26.0	28.6	25.2	25.2	26.6	20.9
<b>Number of cases</b>	<b>813</b>	<b>423</b>	<b>384</b>	<b>944</b>	<b>483</b>	<b>523</b>	<b>491</b>	<b>491</b>
<i>(Per cent)</i>								
<b>Women</b>								
Vigorous exercise (b)								
Group 1 (c)	5.2	6.9	4.6	6.2	5.8	5.6	9.8	8.5
Group 2 (d)	24.1	24.2	25.5	23.2	24.4	21.2	18.2	22.3
Less vigorous exercise (e)	31.5	28.5	27.3	24.0	28.6	28.1	31.7	33.1
Walking	61.9	57.6	56.5	59.3	58.3	65.1	47.9	63.5
No exercise	24.3	29.1	31.0	28.7	28.3	27.8	35.4	24.7
<b>Number of cases</b>	<b>869</b>	<b>421</b>	<b>431</b>	<b>967</b>	<b>480</b>	<b>560</b>	<b>509</b>	<b>490</b>

(a) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.

(b) Exercise which made you breathe harder or puff and pant.

(c) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.

(d) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.

(e) Exercise which did not make you breathe harder or puff and pant.

**Table 20. Percentage not exercising, ranked**

<i>Men</i>	<i>(Per cent)</i>	<i>Women</i>	<i>(Per cent)</i>
Canberra	20.9	Sydney	24.3
Perth	25.2	Canberra	24.7
Hobart	25.2	Hobart	27.8
Brisbane	26.0	Perth	28.3
Darwin	26.6	Adelaide	28.7
Sydney	26.7	Melbourne	29.1
Melbourne	27.1	Brisbane	31.0
Adelaide	28.6	Darwin	35.4

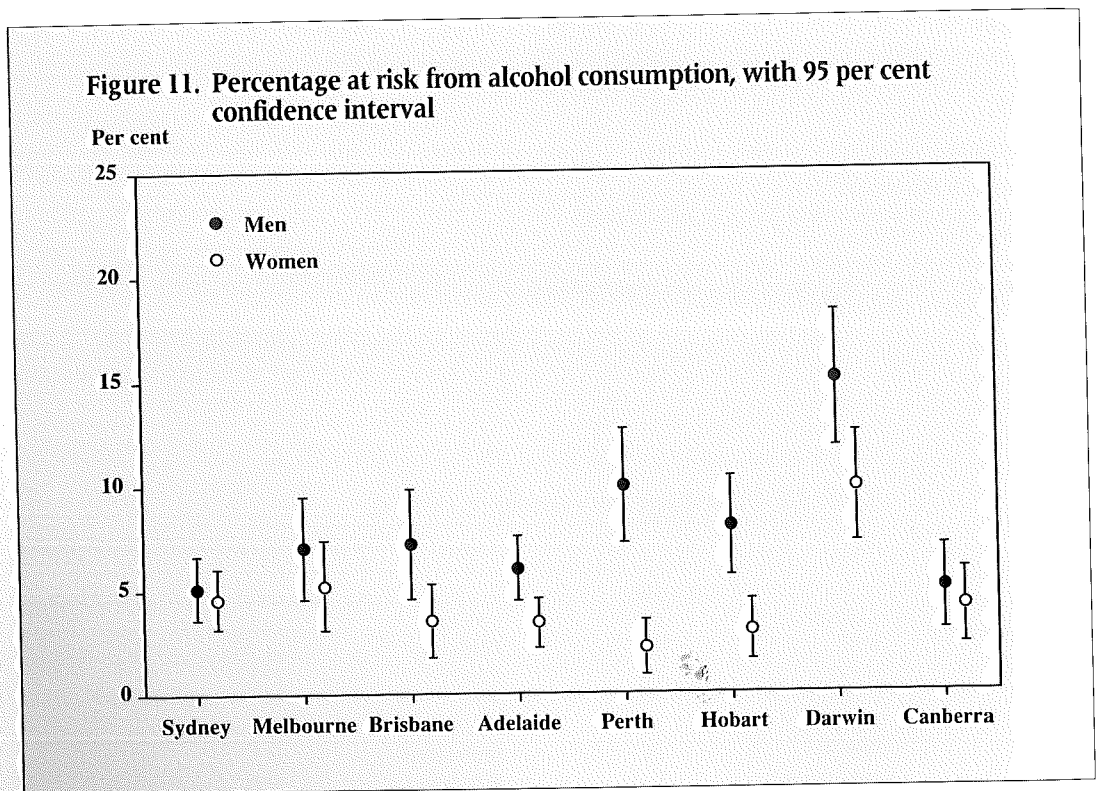
Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

# Alcohol consumption

## Comments

The percentage of men and women classified as being at risk from the effects of alcohol consumption is generally small and is therefore subject to relatively higher standard errors.

Nevertheless, Darwin clearly had the highest proportion of men (15%) and women (10%) who reported drinking at a level which placed them at risk of harm (defined in Appendix F). Sydney and Canberra had a lower prevalence of men at risk, and Perth and Hobart a lower proportion of women at risk.





## City comparisons

**Table 21. Alcohol index**

Alcohol index (a)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	(Per cent)							
<b>Men</b>								
Non-drinkers	13.6	11.0	14.0	13.0	11.9	13.0	13.5	10.3
No-risk	67.5	66.8	66.4	68.1	64.5	66.9	55.5	71.6
Low risk	13.8	15.0	12.1	12.4	13.7	12.0	16.1	13.0
At risk drinkers	5.0	7.0	7.2	6.0	9.9	8.0	14.9	5.0
Not stated	.	0.2	0.3	0.5	.	0.1	.	.
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>813</b>	<b>423</b>	<b>384</b>	<b>944</b>	<b>483</b>	<b>523</b>	<b>491</b>	<b>491</b>
	(Per cent)							
<b>Women</b>								
Non-drinkers	23.6	21.7	33.4	24.0	27.3	27.1	28.1	22.5
Low risk	71.5	72.8	62.8	72.5	70.3	69.5	62.1	73.3
At risk drinkers	4.7	5.1	3.5	3.5	2.2	3.0	9.9	4.1
Not stated	0.3	0.3	0.3	0.1	0.2	0.4	.	.
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>869</b>	<b>421</b>	<b>431</b>	<b>967</b>	<b>480</b>	<b>560</b>	<b>509</b>	<b>490</b>

(a) Based on Q33 and Q34.

Note: Risk relates to harm from a wide variety of possible causes, not only heart disease. See Appendix F.

**Table 22. Percentage at risk from alcohol consumption (a), ranked**

Men		Women	
	(Per cent)		(Per cent)
Canberra	5.0	Perth	2.2
Sydney	5.1	Hobart	3.0
Adelaide	6.0	Adelaide	3.5
Melbourne	7.0	Brisbane	3.5
Brisbane	7.2	Canberra	4.1
Hobart	8.0	Sydney	4.7
Perth	9.9	Melbourne	5.1
Darwin	14.9	Darwin	9.9

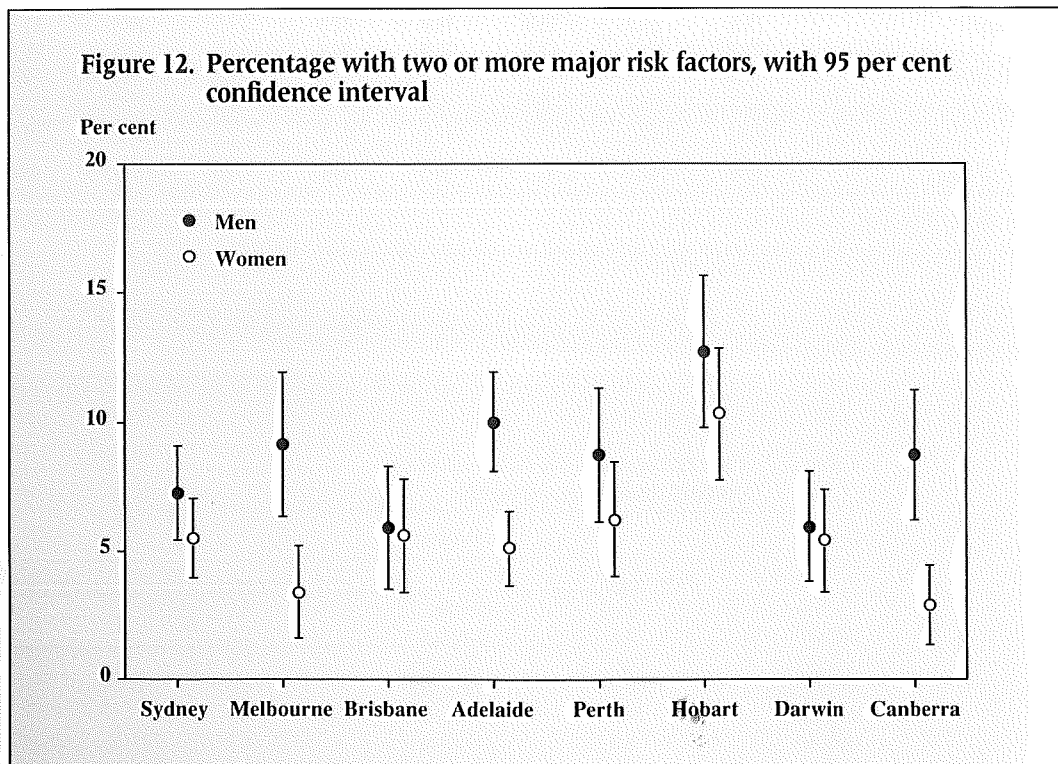
(a) Men: average daily consumption of at least 5 drinks or occasional excess.  
 (b) Women: average daily consumption of at least 4 drinks on any one day.

Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

## Multiple major risk factors

### Comments

Almost 13% of men in Hobart had two or more of the three major risk factors for coronary heart disease; namely, raised blood pressure, cigarette smoking or raised total cholesterol. This compares with the lowest level of 6% for Brisbane men. Canberra women had the lowest prevalence of multiple risk factors (3%) compared with 10% of women in Hobart.



## City comparisons

Table 23. Multiple major risk factors

Multiple risk factors (a)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra
	(Per cent)							
<b>Men</b>								
No risk factors	57.5	59.8	55.7	54.4	56.3	50.3	51.6	57.0
One factor	35.3	31.1	38.4	35.5	35.0	37.0	42.4	34.3
Two factors	6.8	8.3	5.7	9.0	8.5	11.7	5.4	7.9
Three factors	0.4	0.8	0.2	1.0	0.2	1.0	0.5	0.8
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of cases	813	423	384	944	483	523	491	491
	(Per cent)							
<b>Women</b>								
No risk factors	64.9	65.2	67.4	63.5	61.2	51.0	64.5	67.3
One factor	29.6	31.4	27.0	31.4	32.6	38.8	30.1	29.7
Two factors	5.1	3.4	5.4	4.8	5.9	9.7	4.5	2.5
Three factors	0.4	.	0.2	0.3	0.3	0.6	0.9	0.4
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Number of cases	869	421	431	967	480	560	509	490

- (a) Raised blood pressure: diastolic blood pressure  $\geq$  95 mmHg.  
 Raised blood cholesterol: plasma cholesterol  $\geq$  6.5 mmol/L (whether fasted or not).  
 Cigarette smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily cigar and/or pipe smoking is not included).

Table 24. Percentage with two or more major risk factors, ranked

Men	Women
(Per cent)	(Per cent)
Brisbane 5.9	Canberra 2.9
Darwin 5.9	Melbourne 3.4
Sydney 7.2	Adelaide 5.1
Perth 8.7	Darwin 5.4
Canberra 8.7	Sydney 5.5
Melbourne 9.1	Brisbane 5.6
Adelaide 10.0	Perth 6.2
Hobart 12.7	Hobart 10.3

Note: All estimates are age standardised over the range 20-69 years using the WHO World Standard Population.

### Introduction

This chapter presents estimates for each city, based on the city's demographic distribution. The sex and age-specific estimates given for each city reflect the proportion of Australian born to overseas born Australians in each 10-year age group in that city. The 'all ages' estimates apply to the total age range 20-69 years covered in the survey and reflect the age distribution in each city. The aim is to give a representative picture of each city.

Included for each city is a risk factor summary, a response analysis, a description of the sample, and tables of estimates for all major data items collected.

### Risk factor summary

This is a broad overview of each city's risk factor profile and includes hypertension, raised plasma cholesterol, cigarette smoking, overweight and obesity, lack of exercise during leisure time and dietary behaviour. The estimates reflect the age distribution of the city and the proportion of overseas born to Australian born in each 10-year age group. Estimates are given separately for men and women and relate to the age range 20-69 years, the full age range covered in the survey.

### Response analysis

The city's overall response rate is broken down to show response rates for men and women separately, and for each 10-year age group. As part of these calculations it has been necessary to estimate, for each of these sub-groups, the number of 'ineligibles'; that is, people selected in the original sample who were later discovered to have moved out of the catchment area, been institutionalised or died. These estimates of the number of ineligible are 'best' estimates based on the collection control registers maintained in each centre. The detail recorded in these registers varied between centres and where uncertainty occurred the information was interpreted conservatively.

The number of respondents used for the purpose of the response analysis is slightly greater than the number of cases used in the final data analysis. This sample loss was due to the exclusion of data:

- for people who had participated in the survey but were outside the target age range 20-69 years as at 30 June 1989;

- for respondents who completed the questionnaire but declined to participate in the physical examination; or

- which were not collected according to standard procedure;

In addition, the response analysis is based on age group and sex of respondent as recorded on the electoral roll, as this information was used to select the sample, whereas the final data analysis uses age and sex as recorded by the respondent on the questionnaire.

## 5 City estimates

### Description of the sample

These tables provide an overview of respondent characteristics and are a useful guide for planning possible analyses of sub-groups. Sample counts are given for the following variables, by sex and 10-year age group.

- marital status
- living arrangements
- country of birth
- highest level of education completed
- occupation
- employment status
- gross income
- main source of income

The numbers in these tables are unadjusted sample counts and should not be used directly to calculate population characteristics. This is not the purpose of the study and would require the application of sample weights.

Other demographic and socio-economic variables collected but not tabulated in this chapter are: area of residence; number of dependents; period of time in Australia; and employment status, gross income and main source of income of respondent's partner.

### Tables of estimates

These tables provide, for each city, 10-year age-specific estimates for men and women separately and an overall estimate for the age range 20-69 years. These estimates are based on the proportions of overseas born to Australian born residents and the age distribution within each city at 30 June 1988. It is instructive to compare age-specific estimates within each city and between cities.

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**Note:** A separate response analysis is given for Sydney North and Sydney South as these centres had separate catchment areas and operated as independent centres. However, for the purpose of the city comparison their data has been combined to provide estimates for the Sydney Statistical Division.

## RISK FACTOR SUMMARY

	Men	Women
	<i>(Per cent)</i>	
<b>Hypertension (a)</b>	16	12
<b>Raised cholesterol</b>		
$\geq 5.5$ mmol/L	49	41
$\geq 6.5$ mmol/L	17	16
<b>Smoking</b>		
Cigarette smokers	24	21
Cigarettes per day	20	16
<b>Multiple major risk factors (b)</b>		
At least one	42	35
Two or three	7	6
<b>Overweight and obesity (c)</b>		
Overweight	37	21
Obese	8	10
<b>Dietary behaviour</b>		
Usually eat fat on meat	16	9
Always add salt (d)	21	15
<b>Exercise during leisure time (e)</b>		
No exercise of any kind	28	25
Vigorous exercise	34	27
Walking	52	61

(a) See Table 4.

(b) See definition 1 in Table 11.

(c) See Table 8 and Appendix E.

(d) Almost always or always add salt to food after it is cooked (see Table 10).

(e) For recreation, sport or health fitness (see Table 10).

## Response analysis for Sydney North

Of the 1,500 people selected from the electoral rolls, 234 were either no longer living at the address, were outside the study area for the duration of the study, were in prison or had died. Of the 1,266 potential respondents, 985 actually participated in the survey, giving an overall response rate of 77.8 per cent. Age-group and sex are based on electoral roll information.

The response rate was marginally lower for men (77%) than women (78%) and lowest (73%) in the youngest age-group. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

### Response rates by age and sex

	<i>Sample selected</i> (a)	<i>Ineligible</i> (b)	<i>Potential respondents</i> (c)=(a)-(b)	<i>Respondents</i> (d)	<i>Response rate</i> (e)=(d)/(c)
	(Number)	(Number)	(Number)	(Number)	(Per cent)
<b>Sex</b>					
Male	727	119	608	469	77.1
Female	773	115	658	516	78.4
<b>Age</b>					
20-29	348	104	244	178	73.0
30-39	314	73	241	193	80.1
40-49	336	31	305	249	81.6
50-59	259	13	246	190	77.2
60-69	243	13	230	175	76.1
<b>Total</b>	<b>1,500</b>	<b>234</b>	<b>1,266</b>	<b>985</b>	<b>77.8</b>

### Comparison of respondents and non-respondents

	<i>Respondents</i>		<i>Non-respondents</i>	
	(Number)	(Per cent)	(Number)	(Per cent)
<b>Sex</b>				
Male	469	47.6	139	49.5
Female	516	52.4	142	50.5
<b>Age</b>				
20-29	178	18.1	66	23.5
30-39	193	19.6	48	17.1
40-49	249	25.3	56	19.9
50-59	190	19.3	56	19.9
60-69	175	17.8	55	19.6
<b>Total</b>	<b>985</b>	<b>100.0</b>	<b>281</b>	<b>100.0</b>



## Response analysis for Sydney South

Of the 1,500 people selected from the electoral rolls, 350 were either no longer living at the address, were outside the study area for the duration of the study, were in prison or had died. Of the 1,150 potential respondents, 698 actually participated in the survey, giving an overall response rate of 60.7 per cent. Age-group and sex are based on electoral roll information.

The response rate was slightly higher for men (62%) than women (60%) and lowest (56%) in the youngest age-group. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

### Response rates by age and sex

Response rate $(e)=(d)/(c)$ Per cent	Sample selected (a) (Number)	Ineligible (b) (Number)	Potential respondents (c)=(a)-(b) (Number)	Respondents (d) (Number)	Response rate (e)=(d)/(c) (Per cent)
	Sex				
77.1	744	188	556	344	61.9
78.4	756	162	594	354	59.6
	Age				
73.0	351	128	223	125	56.1
80.1	336	88	248	150	60.5
81.6	299	65	234	146	62.4
77.2	254	40	214	138	64.5
76.1	260	29	231	139	60.2
77.8	1,500	350	1,150	698	60.7

### Comparison of respondents and non-respondents

	Respondents		Non-respondents	
	(Number)	(Per cent)	(Number)	(Per cent)
Sex				
Male	344	49.3	211	46.7
Female	354	50.7	241	53.3
Age				
20-29	125	17.9	98	21.7
30-39	150	21.5	98	21.7
40-49	146	20.9	88	19.5
50-59	138	19.8	76	16.8
60-69	139	19.9	92	20.4
<b>Total</b>	<b>698</b>	<b>100.0</b>	<b>452</b>	<b>100.0</b>

**Table 1. Marital status, living arrangements, country of birth and education level**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Marital status</b>												
Never married	122	30	17	15	7	191	90	46	16	13	6	171
Now married	31	113	152	136	134	566	53	121	164	115	103	556
Separated but not divorced	1	1	5	4	1	12	1	3	7	4	2	17
Divorced	1	11	7	9	9	37	4	14	22	20	13	73
Widowed	—	—	1	—	6	7	—	4	3	8	37	52
<b>Living arrangements</b>												
Living with legal spouse	31	111	148	137	134	561	54	120	162	114	101	551
Living with partner (defacto)	11	7	10	2	3	33	13	17	6	3	1	40
Living with other persons	106	23	9	9	7	154	79	34	32	21	20	186
Living alone	7	14	15	16	13	65	2	17	12	22	38	91
Not stated	—	—	—	—	—	—	—	—	—	—	1	1
<b>Country of birth</b>												
Australia	130	112	109	96	96	543	127	138	149	114	121	649
Other Oceania	2	3	3	2	3	13	4	4	7	4	1	20
United Kingdom	4	8	20	17	21	70	3	7	16	12	14	52
Northern Europe	1	4	6	15	17	43	1	2	8	4	12	27
Southern Europe	5	6	22	20	8	61	2	8	15	15	6	46
Asia	11	16	17	12	7	63	7	20	11	6	5	49
Africa	2	5	3	1	3	14	1	8	3	3	2	17
North & South America	—	1	2	1	2	6	3	1	3	2	—	9
<b>Education level</b>												
Never attended school	—	—	—	—	2	2	—	—	—	3	1	4
Primary school	1	1	11	20	23	56	—	2	9	13	25	49
Some high school	25	29	52	54	67	227	33	47	78	73	83	314
Completed high school	64	47	52	45	26	234	53	53	58	38	39	241
Tertiary institution	65	78	67	45	39	294	62	86	67	33	13	261
<b>Cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>148</b>	<b>188</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>869</b>

Table 2. Employment status, occupation, annual gross income and main source of income

All ages	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
	<b>Employment status (a)</b>											
171	118	147	164	138	53	620	101	75	96	53	10	335
556	25	1	5	9	23	63	26	50	70	32	20	198
17	2	3	7	4	4	20	1	10	8	3	2	24
73	145	151	176	151	80	703	128	135	174	88	32	557
52	<b>Occupation (b) (c)</b>											
	15	34	61	43	13	166	3	8	19	9	—	39
551	37	40	39	27	21	164	30	44	38	22	2	136
40	11	14	4	12	1	42	13	9	9	4	—	35
186	27	26	15	24	11	103	6	—	4	2	1	13
91	16	4	10	10	5	45	53	40	64	30	15	202
1	19	10	18	8	8	63	18	15	20	10	3	66
	8	12	11	10	7	48	1	2	1	1	1	6
649	10	8	11	12	8	49	3	6	10	7	5	31
52	—	—	—	1	2	3	—	1	1	—	3	5
27	143	148	169	147	76	683	127	125	166	85	30	533
46	<b>Annual gross income</b>											
49	4	2	—	—	—	6	14	39	26	30	13	122
17	14	3	4	5	38	64	17	34	23	26	57	157
9	4	2	2	4	10	22	5	8	11	7	13	44
4	3	2	1	7	7	20	5	4	5	7	12	33
49	3	3	5	2	7	20	5	7	10	6	11	39
314	10	3	5	4	4	26	5	8	9	4	5	31
241	4	3	3	3	5	18	4	6	14	4	2	30
261	6	4	9	10	9	38	9	7	13	8	7	44
	11	3	5	14	15	48	12	6	14	4	4	40
869	15	10	8	12	7	52	19	4	11	7	7	48
	35	23	24	17	17	116	37	22	27	22	5	113
	22	34	32	25	11	124	9	26	24	15	6	80
	23	63	84	58	20	248	5	13	11	7	—	36
	1	—	—	3	7	11	2	4	14	13	19	52
	<b>Main source of income</b>											
	134	115	125	108	44	526	127	102	129	67	15	440
	10	33	44	34	23	144	1	19	34	12	6	72
	2	3	9	12	54	80	5	16	13	24	77	135
	—	—	—	—	13	13	—	1	—	2	13	16
	2	1	3	10	23	39	3	11	12	26	34	86
	3	1	1	—	—	5	—	2	—	1	1	4
	4	2	—	—	—	6	12	37	24	28	13	114
	—	—	—	—	—	—	—	—	—	—	2	2
	155	155	182	164	157	813	148	188	212	160	161	869

(a) Employed full-time, part-time or not working.

(b) Employed full-time or part-time.

(c) Classified using the Australian Standard Standard Classification of Occupations (see Appendix G).

(d) Own business or share in partnership.

(e) Any government pension or cash benefit.

Note: Employment status, annual gross income and main source of income relate to respondent only (not partner).

**Table 3. Systolic and diastolic blood pressure**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>(Per cent)</i>												
<b>Systolic blood pressure (mmHg) (a)</b>												
Less than 100	1.7	2.3	0.6	0.6	—	1.3	10.2	9.9	2.5	—	0.6	5.8
100-109	16.1	11.6	9.4	0.6	—	9.2	29.8	29.7	14.1	6.4	2.5	19.4
110-119	36.1	27.3	23.6	10.4	4.4	23.4	40.1	32.5	31.2	12.9	6.4	27.8
120-129	29.4	24.3	26.1	26.1	17.1	25.4	13.2	16.8	23.2	20.0	12.1	17.0
130-139	11.7	24.3	23.9	21.3	24.9	20.5	6.1	8.3	12.9	27.0	17.7	12.7
140-149	5.0	8.0	9.0	20.8	24.1	11.3	0.6	1.7	12.5	19.1	21.5	8.8
150-159	—	2.2	5.1	6.1	8.4	3.6	—	0.7	2.3	8.7	20.9	4.8
160-169	—	—	1.8	6.1	10.2	2.6	—	0.5	0.6	1.7	8.9	1.7
170 or more	—	—	0.5	8.0	10.9	2.7	—	—	0.6	4.2	9.4	2.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(mmHg)</i>												
Mean	119	123	126	138	144	128	112	114	123	134	144	122
10th centile	107	108	110	119	122	109	99	100	107	113	121	104
Median	119	122	124	135	140	128	111	113	121	135	145	122
90th centile	135	140	146	165	171	148	125	130	144	155	167	148
Standard error of mean	1.0	1.2	1.0	1.2	1.2	0.6	1.0	1.0	0.9	1.1	1.3	0.6
<i>(Per cent)</i>												
<b>Diastolic blood pressure (mmHg) (a)</b>												
Less than 60	0.6	—	—	—	—	0.1	2.5	0.5	0.6	—	1.2	1.0
60-64	5.6	2.9	2.7	0.6	—	2.9	17.0	14.9	4.3	2.6	0.7	9.6
65-69	12.2	5.6	3.8	0.6	2.5	5.8	27.1	17.6	14.6	5.0	6.3	16.1
70-74	24.4	16.0	16.0	10.3	6.8	16.2	18.2	23.3	20.9	9.7	10.5	17.7
75-79	24.4	21.0	16.6	10.4	13.6	18.5	21.0	18.5	17.5	18.6	9.8	17.8
80-84	18.3	21.1	22.5	26.2	27.5	22.2	6.4	12.1	22.4	23.6	23.4	15.9
85-89	10.0	12.5	13.0	17.1	15.8	13.1	4.2	8.3	10.7	15.4	11.8	9.2
90-94	2.2	12.1	13.7	18.9	17.0	11.5	3.0	3.9	5.9	16.0	16.8	7.6
95-99	2.2	5.6	7.2	6.1	8.5	5.5	0.6	0.5	1.7	3.8	8.3	2.3
100-104	—	2.0	3.5	3.7	4.4	2.3	—	—	1.4	4.0	5.6	1.6
105-109	—	0.5	0.5	2.4	1.2	0.8	—	0.5	—	1.3	3.7	0.8
110 or more	—	0.5	0.5	3.7	2.6	1.1	—	—	—	—	1.9	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(mmHg)</i>												
Mean	76	81	83	87	86	82	72	74	77	83	85	77
10th centile	66	70	71	74	75	70	62	63	68	71	71	64
Median	76	80	82	85	84	82	70	73	77	83	84	78
90th centile	87	94	95	99	99	94	82	85	89	94	100	90
Standard error of mean	0.7	0.9	0.7	0.7	0.6	0.4	0.8	0.7	0.5	0.6	0.8	0.3
<b>Number of cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>148</b>	<b>188</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>869</b>

(a) The average of two readings taken 5 minutes apart.

Table 4. Blood pressure: related statistics

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>When blood pressure last measured (a)</b>												
In the last three months	21.1	30.1	36.3	38.4	45.9	32.3	42.2	35.7	38.5	49.6	52.9	42.4
In the last six months	12.2	14.9	12.7	20.1	20.4	15.2	20.1	24.4	16.8	15.1	16.2	19.3
In the last year	17.2	22.5	15.2	22.0	15.2	18.6	25.6	20.3	21.5	21.9	22.7	22.5
In the last three years	23.3	17.7	18.0	15.8	10.9	18.1	8.7	13.6	14.9	6.0	4.5	10.2
More than three years ago	11.1	7.4	14.2	2.4	5.6	8.8	1.7	2.7	5.7	4.8	3.7	3.5
Never measured	5.6	2.9	1.7	—	0.7	2.6	—	—	—	0.7	—	0.1
Don't know	9.4	4.4	1.7	1.2	1.4	4.3	1.7	3.3	2.5	1.9	—	2.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high blood pressure (b)</b>	<b>5.0</b>	<b>10.2</b>	<b>18.0</b>	<b>25.7</b>	<b>29.0</b>	<b>15.2</b>	<b>10.8</b>	<b>10.9</b>	<b>17.2</b>	<b>33.1</b>	<b>37.0</b>	<b>19.0</b>
<b>On blood pressure tablets (c)</b>	<b>0.6</b>	<b>3.4</b>	<b>7.2</b>	<b>15.3</b>	<b>25.5</b>	<b>8.0</b>	<b>—</b>	<b>1.2</b>	<b>6.8</b>	<b>17.9</b>	<b>27.6</b>	<b>8.1</b>
<b>Hypertensives</b>												
Controlled (d)	0.6	2.5	3.9	7.9	12.0	4.3	—	1.2	5.7	13.7	15.6	5.6
Treated, uncontrolled (e)	—	0.9	3.4	7.3	13.5	3.7	—	—	1.0	4.2	12.0	2.5
Untreated (f)	2.2	7.8	8.4	12.8	16.7	8.3	0.6	0.9	2.1	7.8	16.1	4.2
Total hypertensives	2.8	11.3	15.6	28.1	42.2	16.4	0.6	2.1	8.8	25.7	43.7	12.3
Normotensives (g)	97.2	88.7	84.4	71.9	57.8	83.6	99.4	97.9	91.2	74.3	56.3	87.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>148</b>	<b>188</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>869</b>

- (a) Q9. When did you last have your blood pressure measured?
  - (b) Q11. Have you ever been told that you have high blood pressure?
  - (c) Q12. Are you on tablets for blood pressure?
  - (d) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.
  - (e) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.
  - (f) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.
  - (g) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.
- Note: Classifications of hypertension are those used in the WHO MONICA Project.

**Table 5. Plasma cholesterol and related statistics**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Plasma cholesterol (mmol/L) (a) (b)</b>												
Less than 3.00	0.6	—	—	—	—	0.2	1.9	—	0.7	0.7	—	0.7
3.00-3.99	14.2	8.4	1.8	2.7	1.3	6.8	20.3	9.4	5.7	2.0	1.2	9.3
4.00-4.99	37.9	31.4	17.7	14.5	17.8	25.9	49.3	43.2	34.4	15.3	8.0	34.1
5.00-5.99	31.9	40.4	38.8	37.5	37.6	37.1	17.5	32.7	37.8	39.1	27.3	29.9
6.00-6.99	13.0	15.1	30.4	35.5	31.0	22.9	7.4	9.5	18.6	29.2	39.4	17.8
7.00-7.99	1.8	4.1	9.6	9.3	9.7	6.1	1.0	4.6	2.3	11.8	17.0	6.0
8.00-8.99	—	0.6	1.8	0.6	1.4	0.8	2.5	0.6	0.5	2.0	6.1	2.1
9.00 or more	0.6	—	—	—	1.2	0.3	—	—	—	—	0.9	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmol/L)											
Mean	4.96	5.28	5.79	5.85	5.85	5.46	4.73	5.08	5.27	5.87	6.32	5.31
10th centile	3.86	4.10	4.60	4.80	4.68	4.10	3.49	4.00	4.12	4.50	5.04	3.97
Median	4.85	5.20	5.80	5.90	5.75	5.50	4.57	4.80	5.23	5.88	6.21	5.40
90th centile	6.13	6.70	7.10	6.96	7.08	6.80	6.04	6.40	6.55	7.20	7.70	6.82
Standard error of mean	0.10	0.09	0.07	0.06	0.07	0.04	0.17	0.09	0.06	0.08	0.07	0.04
	(Per cent)											
Cholesterol $\geq$ 5.5 mmol/L	26.6	41.0	63.2	66.4	62.8	48.5	19.7	27.7	41.9	65.4	80.6	41.3
Cholesterol $\geq$ 6.5 mmol/L	5.4	13.8	23.9	24.3	25.2	16.8	5.5	7.7	11.9	26.9	42.8	15.6
<b>Number of cases</b>	<b>147</b>	<b>151</b>	<b>167</b>	<b>153</b>	<b>150</b>	<b>768</b>	<b>85</b>	<b>142</b>	<b>185</b>	<b>139</b>	<b>147</b>	<b>698</b>
	(Per cent)											
<b>When blood cholesterol last measured (c)</b>												
In the last three months	3.9	9.4	16.3	15.9	15.2	11.1	8.7	5.7	10.7	13.6	16.1	10.1
In the last six months	3.9	6.9	8.4	17.6	14.4	9.0	5.1	8.4	9.7	15.5	15.5	9.8
In the last year	7.8	12.0	15.7	15.9	16.3	12.8	4.9	12.0	11.3	16.7	15.6	11.2
In the last three years	6.1	10.7	17.4	20.2	16.7	13.1	6.4	10.2	13.3	13.0	12.3	10.6
More than three years ago	4.4	8.5	10.0	4.9	9.2	7.3	1.9	4.7	3.7	7.7	12.0	5.2
Never measured	56.7	46.5	27.8	20.1	18.1	37.7	67.1	50.9	45.6	30.3	21.8	47.0
Don't know	17.2	6.0	4.5	5.4	10.1	9.0	5.9	8.0	5.7	3.2	6.7	6.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high cholesterol (d)</b>	6.7	10.5	24.1	29.3	26.0	17.1	5.9	7.7	8.4	27.5	33.2	13.8
<b>Treatment to lower blood fat (e)</b>	—	2.9	4.0	7.9	8.8	3.9	—	0.7	0.6	5.9	12.7	2.9
<b>Number of cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>148</b>	<b>188</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>869</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q10. When did you last have your blood cholesterol measured?

(d) Q11. Have you ever been told that you have high cholesterol?

(e) Q13. Are you having treatment to lower your blood fat?

Table 6. HDL cholesterol and plasma triglycerides

All ages	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
	HDL cholesterol (mmol/L) (a) (b)											
0.7	Less than 0.50											
9.3	24.5	25.3	23.5	28.7	26.4	25.4	7.4	6.4	7.1	6.6	8.0	7.1
34.1	62.5	62.6	61.6	53.0	58.8	60.4	55.8	50.0	44.2	41.7	37.8	47.4
29.9	11.2	8.4	12.7	15.7	14.3	11.9	34.9	37.9	40.5	40.1	40.0	38.3
17.8	0.6	2.2	2.1	2.0	0.6	1.5	1.9	5.0	6.8	9.7	11.6	6.2
6.0	—	0.6	—	—	—	0.1	—	—	0.5	2.0	2.4	0.7
2.1	1.2	—	—	0.6	—	0.4	—	0.6	0.9	—	—	0.3
0.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
00.0	(mmol/L)											
	1.16	1.16	1.19	1.18	1.17	1.17	1.37	1.43	1.48	1.50	1.54	1.45
5.31	0.80	0.80	0.83	0.81	0.83	0.80	1.00	1.10	1.05	1.00	1.04	1.05
3.97	1.10	1.11	1.13	1.10	1.14	1.11	1.38	1.40	1.48	1.50	1.50	1.48
5.40	1.55	1.51	1.60	1.61	1.50	1.57	1.72	1.85	1.92	2.00	2.07	1.90
6.82	0.03	0.03	0.02	0.02	0.02	0.01	0.04	0.03	0.02	0.03	0.03	0.01
0.04	(Per cent)											
	Plasma triglyceride (mmol/L) (b)											
41.3	Less than 0.50											
15.6	48.0	39.6	30.4	21.6	19.4	34.6	62.0	59.0	57.8	39.7	27.6	52.4
698	25.7	28.0	25.3	31.4	34.8	28.2	16.4	22.3	24.3	35.4	34.8	24.8
	16.9	18.4	18.4	24.8	18.7	19.0	4.9	7.0	10.1	10.9	18.1	9.2
10.1	4.1	6.2	13.6	11.1	15.9	9.2	3.5	2.1	2.1	7.8	9.2	4.3
9.8	2.3	2.4	2.3	1.9	4.1	2.5	—	0.9	0.5	1.3	3.7	1.0
11.2	0.6	1.7	7.6	7.9	6.4	4.2	2.5	2.1	—	2.8	4.3	2.2
10.6	—	2.1	1.1	0.6	0.7	0.9	—	—	—	0.7	0.6	0.2
5.2	1.2	—	—	0.6	—	0.4	—	0.6	0.9	—	—	0.3
47.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
6.1	(mmol/L)											
00.0	1.16	1.36	1.57	1.63	1.62	1.42	0.90	0.98	0.96	1.26	1.45	1.06
13.8	0.63	0.65	0.70	0.80	0.85	0.70	0.49	0.55	0.57	0.63	0.78	0.55
2.9	0.98	1.05	1.30	1.40	1.40	1.25	0.71	0.80	0.83	1.07	1.21	0.90
869	1.84	2.20	2.80	2.50	2.73	2.30	1.51	1.70	1.56	2.23	2.37	1.82
	0.05	0.09	0.07	0.06	0.05	0.03	0.08	0.05	0.03	0.06	0.05	0.02
	147	151	167	153	150	768	85	142	185	139	147	698
	(Per cent)											
	Told of high triglycerides (c)											
	—	5.6	11.5	12.8	13.3	7.4	1.1	1.7	2.9	9.2	6.9	3.6
	155	155	182	164	157	813	148	188	212	160	161	869

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q11. Have you ever been told that you have high triglycerides?

**Table 7. Smoking behaviour and alcohol consumption**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>Smoking behaviour</i>												
<i>(Per cent)</i>												
<b>Smoking status (a)</b>												
Cigarette smoker (b) (c)	28.9	24.5	24.7	20.1	15.3	23.9	25.2	21.0	21.1	15.6	15.9	20.6
Cigar and/or pipe only	—	0.5	1.5	3.6	1.2	1.2	0.6	—	—	—	—	0.1
Ex-smokers	14.4	23.2	33.6	40.2	53.5	29.5	17.1	16.9	26.1	20.0	20.2	19.7
Never smoked regularly	56.7	51.7	40.2	36.1	30.0	45.5	57.2	62.2	52.8	64.4	63.9	59.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>148</b>	<b>188</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>869</b>
<b>Manufactured cigarettes a day (d)</b>												
<i>(Per cent)</i>												
1-10	35.3	23.5	21.7	9.6	26.6	25.4	46.6	47.5	29.2	25.3	45.9	40.9
11-20	58.8	41.8	38.1	38.6	36.7	45.7	43.6	28.0	61.2	42.9	30.3	41.6
21-40	5.9	25.0	33.8	42.0	36.7	23.7	9.8	24.5	9.6	28.0	23.9	17.0
41 or more	—	9.8	6.4	9.7	—	5.2	—	—	—	3.8	—	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(Cigarettes)</i>												
Mean	14	21	22	26	19	20	13	14	16	22	16	16
Standard error of mean	0.9	2.2	1.9	2.4	2.3	0.9	1.2	1.6	1.0	2.8	1.9	0.7
<b>Number of cases</b>	<b>42</b>	<b>38</b>	<b>42</b>	<b>31</b>	<b>22</b>	<b>175</b>	<b>39</b>	<b>41</b>	<b>46</b>	<b>24</b>	<b>26</b>	<b>176</b>
<b>Alcohol consumption</b>												
<i>(Per cent)</i>												
<b>Usual frequency (e)</b>												
I don't drink alcohol	13.9	12.8	9.3	17.0	17.7	13.6	19.9	24.8	20.0	30.9	26.6	23.7
Less than once a week	28.9	23.6	19.1	15.8	17.0	22.0	42.4	28.2	27.7	23.8	26.5	30.9
On 1 or 2 days a week	33.4	25.4	16.9	18.9	15.2	23.4	27.0	19.7	18.5	14.9	11.1	19.5
On 3 or 4 days a week	17.8	15.8	20.5	14.0	9.5	16.3	7.0	13.7	13.1	9.9	10.2	10.8
On 5 or 6 days a week	5.0	13.9	10.5	9.2	10.6	9.7	1.7	7.7	8.0	8.7	3.5	5.8
Every day	1.1	8.5	23.7	25.1	30.0	15.0	1.9	5.9	12.8	11.9	22.1	9.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Usual consumption (f)</b>												
I don't drink alcohol	13.9	12.8	9.3	17.0	17.7	13.6	19.9	24.8	20.0	30.9	26.6	23.7
1 or 2 drinks	30.6	41.0	44.1	39.6	41.5	38.8	45.8	58.2	62.2	54.8	59.9	55.5
3 or 4 drinks	37.2	33.4	31.3	31.7	27.0	32.9	21.7	13.9	16.6	12.6	11.5	16.0
5 to 8 drinks	17.2	10.0	11.0	11.0	13.1	12.6	11.3	2.7	0.8	1.7	1.2	4.2
9 to 12 drinks	—	2.7	4.4	0.6	0.7	1.8	—	—	—	—	—	—
13 to 20 drinks	1.1	—	—	—	—	0.3	—	—	—	—	—	0.3
Not stated	—	—	—	—	—	—	—	0.5	0.4	—	0.7	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Alcohol index</b>												
Intermediate risk or more (g)	1.1	3.3	8.2	8.0	8.0	5.1	3.4	3.2	4.7	7.1	6.6	4.6
<b>Number of cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>148</b>	<b>188</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>869</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe.

(c) Includes persons who smoke hand-rolled cigarettes.

(d) Current smokers of manufactured cigarettes.

(e) Q33. How often do you usually drink alcohol?

(f) Q34. On a day when you drink alcohol, how many drinks do you usually have?

(g) Men: average daily consumption of at least 5 drinks or occasional excess.

Women: average daily consumption of at least 4 drinks or at least 9 drinks in any one day.

} See Appendix F.



Table 8. Height, weight and weight for height

ages	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
Height (cm) (b)												
Under 150	—	—	—	—	—	—	1.1	—	1.4	1.5	5.4	1.6
150-159	2.2	0.9	2.5	5.5	2.4	2.4	19.1	23.0	27.4	30.7	44.2	26.9
160-169	11.7	16.9	16.6	25.5	26.0	17.9	58.7	61.4	54.1	57.2	46.2	56.5
170-179	56.1	48.0	51.8	42.8	59.0	51.5	21.0	15.6	17.0	10.6	4.2	15.0
180-189	29.5	30.8	27.6	24.4	12.1	26.5	—	—	—	—	—	—
190+	0.6	3.4	1.0	1.8	0.6	1.6	—	—	—	—	—	—
Not stated	—	—	0.5	—	—	0.1	—	—	—	—	—	—
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(cm)											
Mean	176	176	175	174	173	175	164	164	163	162	160	163
10th centile	166	168	166	163	165	166	155	156	156	154	152	155
Median	177	177	175	174	172	175	165	164	163	163	160	163
90th centile	184	185	184	184	180	184	172	171	171	170	168	171
Standard error of mean	0.6	0.7	0.5	0.5	0.4	0.2	0.7	0.5	0.4	0.4	0.4	0.2
	(Per cent)											
Weight (kg) (c)												
Less than 50	1.1	—	0.5	0.6	—	0.5	9.9	8.1	4.9	3.6	4.7	6.8
50-59	4.4	4.1	2.9	4.9	2.5	3.9	45.5	37.9	30.0	24.9	27.3	35.0
60-69	36.7	17.9	21.6	16.4	16.6	23.2	29.7	29.6	36.7	34.2	39.8	33.1
70-79	32.8	36.6	35.7	30.5	42.8	35.3	8.3	14.2	16.9	18.4	20.0	14.6
80-89	17.2	24.0	23.2	28.0	22.6	22.5	2.9	3.4	7.6	10.7	7.0	5.7
90-99	5.5	12.6	9.5	12.9	13.9	10.3	2.6	3.6	2.0	5.7	1.2	3.0
100-109	1.7	4.2	6.3	5.5	—	3.7	1.1	2.3	0.6	1.9	—	1.3
110 or more	0.6	—	—	1.2	1.7	0.5	—	0.8	1.3	0.6	—	0.5
Not stated	—	0.5	0.5	—	—	0.2	—	—	—	—	—	—
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(kg)											
Mean	73.5	78.7	78.6	80.0	78.2	77.5	61.3	63.5	65.3	68.4	65.0	64.2
10th centile	62.0	65.0	63.0	64.2	65.5	63.3	50.0	50.0	52.1	53.0	52.6	51.0
Median	73.0	78.0	78.0	79.1	76.7	77.4	59.2	61.4	63.0	65.3	64.0	62.8
90th centile	86.0	95.0	94.5	95.9	91.0	93.1	74.7	80.0	81.0	87.2	78.0	80.5
Standard error of mean	1.04	1.09	0.87	0.84	0.69	0.42	1.17	1.11	0.75	0.94	0.69	0.42
	(Per cent)											
Weight for height (d)												
Underweight	10.0	4.9	1.6	1.2	2.1	4.6	30.3	23.8	15.0	7.3	8.3	19.2
Acceptable weight	65.0	48.3	46.6	40.8	40.2	50.2	53.6	52.1	50.8	48.7	39.9	50.0
Overweight	22.2	39.0	42.7	45.2	47.8	37.4	9.5	15.5	23.5	23.9	42.5	20.5
Obese	2.8	7.3	8.6	12.8	10.0	7.6	6.6	8.6	10.7	20.1	9.2	10.3
Not stated	—	0.5	0.5	—	—	0.2	—	—	—	—	—	—
Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(kg/m <sup>2</sup> )											
Mean	23.4	24.9	25.2	26.1	25.9	24.9	22.4	23.3	24.2	25.7	25.1	23.9
10th centile	20.2	20.7	21.7	22.0	21.9	20.9	18.7	18.7	19.7	20.2	20.3	19.2
Median	23.1	24.6	25.0	25.6	25.5	24.8	21.4	21.9	23.0	24.4	25.1	23.1
90th centile	27.0	28.9	29.6	30.7	30.0	29.1	26.5	29.0	30.0	32.4	29.2	30.0
Standard error of mean	0.30	0.29	0.22	0.24	0.22	0.12	0.44	0.41	0.28	0.37	0.27	0.16
Number of cases	155	155	182	164	157	813	145	174	212	160	161	852

(a) Excludes pregnant women.  
 (b) Height in stockings feet.

(c) Weight in stockinged feet and light street clothing.  
 (d) Based on body mass index (Wt-1/Ht<sup>2</sup>). See Appendix E.

**Table 9. Waist circumference, hip circumference and waist to hip ratio**

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Waist circumference (cm) (b)</b>							<b>(Per cent)</b>					
Less than 60	—	—	—	—	—	—	6.0	3.4	2.3	2.5	—	3.3
60-69	5.0	1.8	0.5	0.6	0.7	2.0	58.6	46.3	39.0	21.8	16.7	40.3
70-79	36.7	19.0	10.5	8.5	5.1	18.5	24.7	33.1	31.7	32.0	34.7	30.7
80-89	42.8	31.8	41.7	29.3	28.2	35.9	7.5	9.9	17.1	25.9	32.6	16.2
90-99	12.2	37.3	34.6	36.5	38.9	30.3	2.6	4.7	5.1	10.6	11.1	6.0
100-109	2.8	8.9	10.5	20.2	22.8	11.1	0.6	1.8	3.7	6.0	3.8	2.8
110 or more	0.6	1.1	2.1	4.9	4.3	2.1	—	0.8	1.0	1.2	1.2	0.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<b>(cm)</b>					
Mean	81.7	87.8	89.2	92.5	93.5	87.9	68.6	71.7	74.3	78.4	79.8	73.5
10th centile	73.0	75.0	78.5	79.5	82.5	75.0	60.5	61.5	62.5	66.0	67.0	62.0
Median	81.0	88.5	89.0	91.5	93.0	89.0	67.0	69.3	71.0	75.5	79.0	72.0
90th centile	92.0	99.5	101.5	106.0	105.0	101.5	79.5	87.0	88.5	95.0	92.0	89.0
Standard error of mean	0.78	0.93	0.62	0.69	0.62	0.36	0.87	0.85	0.68	0.84	0.69	0.38
<b>Hip circumference (cm) (b)</b>							<b>(Per cent)</b>					
less than 85	2.2	1.8	1.1	—	—	1.3	7.2	3.3	4.3	1.3	1.8	4.0
85-89	8.9	6.3	3.5	4.9	1.2	5.5	19.7	17.9	10.3	8.4	6.6	13.9
90-94	31.1	15.3	17.6	7.9	13.5	18.6	31.0	27.5	26.5	17.5	13.2	24.8
95-99	31.7	31.6	31.9	29.2	28.2	30.9	20.5	20.0	20.4	24.5	28.2	22.0
100-104	17.8	23.2	26.8	31.1	32.3	24.9	12.7	14.8	16.6	12.5	25.7	15.8
105-109	5.6	16.3	14.3	15.9	18.6	13.3	4.3	7.5	11.1	13.5	10.4	8.7
110-114	1.1	2.7	3.0	5.5	3.7	2.9	2.3	1.8	6.2	6.4	7.2	4.2
115-119	0.6	1.6	1.1	3.7	0.7	1.4	1.1	2.8	1.0	10.2	4.1	3.3
120 or more	1.1	1.1	—	1.8	1.7	1.1	1.1	4.4	3.5	5.5	2.9	3.3
Not stated	—	—	0.5	—	—	0.1	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<b>(cm)</b>					
Mean	96.3	99.0	98.9	100.9	100.8	98.8	94.2	96.8	98.0	101.6	100.3	97.5
10th centile	89.0	90.0	91.0	92.0	92.5	90.5	85.5	88.0	88.0	89.5	90.0	87.5
Median	96.0	99.0	98.5	100.3	100.0	99.0	93.0	95.0	97.0	99.0	99.5	97.0
90th centile	103.5	108.5	106.5	110.0	108.5	107.5	104.0	109.0	110.0	116.5	111.0	110.0
Standard error of mean	0.62	0.68	0.44	0.47	0.42	0.24	0.84	0.80	0.58	0.77	0.57	0.33
<b>Waist to hip ratio</b>							<b>(Per cent)</b>					
Less than 0.699	0.6	—	—	—	—	0.1	33.6	28.0	16.2	11.7	5.8	21.7
0.700-0.799	16.7	5.1	2.4	1.8	1.4	6.6	53.9	58.6	62.8	54.9	51.1	56.6
0.800-0.899	70.6	55.0	48.7	34.1	29.9	51.4	12.5	12.9	16.2	28.2	39.8	19.4
0.900-0.999	11.1	36.8	41.9	57.9	58.9	37.1	—	0.5	4.2	3.5	2.6	1.8
1.000 or more	0.6	1.1	4.9	6.1	9.3	3.5	—	—	—	—	0.7	0.1
Not stated	0.6	2.0	2.1	—	0.6	1.2	—	—	0.6	1.9	—	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<b>(Waist/Hip)</b>					
Mean	0.848	0.885	0.901	0.916	0.927	0.889	0.728	0.739	0.757	0.771	0.794	0.752
10th centile	0.779	0.822	0.836	0.843	0.859	0.813	0.667	0.676	0.684	0.694	0.719	0.676
Median	0.848	0.884	0.898	0.914	0.930	0.895	0.716	0.730	0.748	0.766	0.789	0.750
90th centile	0.913	0.942	0.970	0.986	0.990	0.965	0.805	0.828	0.833	0.849	0.873	0.837
Standard error of mean	0.005	0.005	0.004	0.004	0.004	0.002	0.006	0.005	0.004	0.005	0.004	0.002
<b>Number of cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>145</b>	<b>174</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>852</b>

(a) Excludes pregnant women.

(b) The average of two measurements.

Table 10. Dietary behaviour and exercise during leisure time

ages	Men						Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Per cent)												
	<b>Eat fat on meat (a)</b>												
	Usually	12.8	14.9	16.4	20.2	17.5	15.8	11.8	8.2	7.8	7.8	7.3	8.9
	Sometimes	34.4	28.1	33.6	31.7	30.3	31.7	23.1	32.5	32.4	27.9	19.3	27.5
	Rarely or never	52.8	57.0	50.1	48.2	52.2	52.5	65.1	59.3	59.8	64.3	73.4	63.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<b>Add salt to food (b)</b>												
	Rarely or never	50.6	51.5	49.0	43.3	37.2	47.7	59.5	62.3	56.7	48.4	53.9	57.2
	Sometimes	35.0	29.6	29.6	34.0	28.0	31.5	26.3	25.9	27.3	36.3	28.2	28.1
	Almost always or always	14.4	18.9	21.4	22.7	34.8	20.8	14.2	11.8	16.0	15.3	17.8	14.6
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	<b>Exercise during leisure time (c)</b>												
	<b>Vigorous exercise (d)</b>												
	Group 1 (e)	10.2	8.6	8.0	5.1	3.3	7.7	7.7	6.8	5.1	2.7	1.3	5.3
	Group 2 (f)	38.4	33.0	23.0	13.5	10.8	26.6	37.5	20.1	23.0	9.9	6.8	21.9
	Less vigorous exercise (g)	41.3	30.0	29.2	26.3	30.2	32.3	39.5	34.8	29.1	27.6	16.0	31.2
	Walking	48.0	49.6	44.0	63.5	65.3	52.1	65.1	60.3	60.4	59.3	59.5	61.3
	No exercise of any kind	22.0	29.0	35.5	26.9	24.1	27.6	14.1	27.0	23.9	35.0	33.9	25.1
	<b>Number of cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>148</b>	<b>188</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>869</b>

(a) Q37. How often do you eat the fat on meat?

(b) Q35. Do you add salt to your food after it is cooked?

(c) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.

(d) Exercise which made you breathe harder or puff and pant.

(e) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.

(f) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.

(g) Exercise which did not make you breathe harder or puff and pant.

Note: Respondents in the exercise table may be counted in more than one category.

**Table 11. Multiple major risk factors (a)**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Risk factors present (b)</b>												
No risk factors	66.1	60.4	50.1	51.2	53.4	57.5	69.5	73.9	68.4	59.2	40.4	64.9
One factor	31.7	32.5	40.0	39.0	35.8	35.3	28.6	24.0	27.7	31.0	43.4	29.6
Two factors	2.2	6.2	9.9	9.2	10.1	6.9	1.9	2.1	3.9	9.2	13.9	5.1
Three factors	—	0.9	—	0.6	0.7	0.4	—	—	—	0.6	2.3	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Risk factors present (c)</b>												
No risk factors	66.7	65.2	55.3	51.8	58.6	60.7	69.5	74.4	70.3	60.6	45.5	66.3
One factor	32.8	30.3	37.4	39.6	33.8	34.3	28.6	23.5	25.8	33.5	41.2	29.2
Two factors	0.6	4.5	7.2	8.5	6.4	4.9	1.9	2.1	3.9	5.9	12.7	4.4
Three factors	—	—	—	—	1.2	0.2	—	—	—	—	0.6	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>155</b>	<b>155</b>	<b>182</b>	<b>164</b>	<b>157</b>	<b>813</b>	<b>148</b>	<b>188</b>	<b>212</b>	<b>160</b>	<b>161</b>	<b>869</b>

(a) Risk factors were considered present if participants were smokers, had raised blood pressure or raised plasma cholesterol (whether fasted or not). Prevalence rates of zero, one, any two, or all three risk factors were determined, based on the definitions given below.

(b) Definition 1 (used in previous RFPS reports):

- Raised blood pressure: diastolic blood pressure  $\geq 95$  mmHg.
- Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.
- Smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily (cigar and/or pipe smoking is not included).

(c) Definition 2 (used in the WHO MONICA project):

- Hypertension: systolic blood pressure  $\geq 160$  mmHg and/or diastolic blood pressure  $\geq 95$  mmHg and/or on tablets for blood pressure.
- Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.
- Smoking: regular cigarette, cigar and/or pipe smokers.

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## RISK FACTOR SUMMARY

	Men	Women
	<i>(Per cent)</i>	
<b>Hypertension (a)</b>	20	12
<b>Raised cholesterol</b>		
$\geq 5.5\text{mmol/L}$	42	37
$\geq 6.5\text{ mmol/L}$	12	14
<b>Smoking</b>		
Cigarette smokers	24	24
Cigarettes per day	20	17
<b>Multiple major risk factors (b)</b>		
At least one	40	34
Two or three	9	3
<b>Overweight and obesity (c)</b>		
Overweight	38	23
Obese	10	12
<b>Dietary behaviour</b>		
Usually eat fat on meat	18	6
Always add salt (d)	18	11
<b>Exercise during leisure time (e)</b>		
No exercise of any kind	28	29
Vigorous exercise	38	31
Walking	53	57

(a) See Table 4.

(b) See definition 1 in Table 11.

(c) See Table 8 and Appendix E.

(d) Almost always or always add salt to food after it is cooked (see Table 10).

(e) For recreation, sport or health fitness (see Table 10).

## Response analysis

Of the 1,500 people selected from the electoral rolls, 284 were either no longer living at the address, were outside the study area for the duration of the study, were in prison or had died. Of the 1,216 potential respondents, 848 actually participated in the survey, giving an overall response rate of 69.7 per cent. Age-group and sex are based on electoral roll information.

The response rate was higher for men (72%) than women (67%) and lowest (59%) in the youngest age-group. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

### Response rates by age and sex

	Sample selected (a)	Ineligible (b)	Potential respondents (c)=(a)-(b)	Respondents (d)	Response rate (e)=(d)/(c)
	(Number)	(Number)	(Number)	(Number)	(Per cent)
Sex					
Male	732	142	590	427	72.4
Female	768	142	626	421	67.3
Age					
20-29	370	118	252	149	59.1
30-39	336	70	266	201	75.6
40-49	288	40	248	175	70.6
50-59	248	28	220	165	75.0
60-69	258	28	230	158	68.7
<b>Total</b>	<b>1,500</b>	<b>284</b>	<b>1,216</b>	<b>848</b>	<b>69.7</b>

### Comparison of respondents and non-respondents

	Respondents		Non-respondents	
	(Number)	(Per cent)	(Number)	(Per cent)
Sex				
Male	427	50.4	163	44.3
Female	421	49.6	205	55.7
Age				
20-29	149	17.6	103	28.0
30-39	201	23.7	65	17.7
40-49	175	20.6	73	19.8
50-59	165	19.5	55	14.9
60-69	158	18.6	72	19.6
<b>Total</b>	<b>848</b>	<b>100.0</b>	<b>368</b>	<b>100.0</b>

# Melbourne

**Table 1. Marital status, living arrangements, country of birth and education level**

	<i>Men</i>						<i>Women</i>					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Marital status</b>												
Never married	61	32	13	7	6	119	55	25	13	8	6	107
Now married	16	65	64	65	66	276	11	62	67	62	46	248
Separated but not divorced	1	1	2	—	2	6	2	2	4	—	2	10
Divorced	—	4	4	8	3	19	1	6	6	9	5	27
Widowed	—	1	—	—	2	3	—	—	—	7	20	27
Not stated	—	—	—	—	—	—	—	2	—	—	—	2
<b>Living arrangements</b>												
Living with legal spouse	14	64	63	66	66	273	11	60	66	63	48	248
Living with partner (defacto)	8	12	2	1	—	23	5	5	2	3	1	16
Living with other persons	49	14	5	3	5	76	52	14	10	10	6	92
Living alone	7	13	12	10	8	50	1	17	12	10	24	64
Not stated	—	—	1	—	—	1	—	1	—	—	—	1
<b>Country of birth</b>												
Australia	61	79	48	46	52	286	58	82	48	45	60	293
Other Oceania	1	1	1	2	—	5	2	2	—	—	1	5
United Kingdom	3	10	6	10	6	35	2	1	10	2	6	21
Northern Europe	2	—	2	3	8	15	1	5	6	8	5	25
Southern Europe	3	5	14	14	12	48	4	5	17	27	5	58
Asia	5	7	6	4	—	22	2	2	5	2	1	12
Africa	3	1	4	1	1	10	—	—	1	2	—	3
North & South America	—	—	2	—	—	2	—	—	3	—	1	4
<b>Education level</b>												
Never attended school	—	2	—	1	—	3	1	—	—	1	—	2
Primary school	—	2	9	12	18	41	—	2	14	27	20	63
Some high school	17	21	29	23	29	119	19	22	29	31	35	136
Completed high school	25	21	11	18	15	90	14	24	18	12	15	83
Tertiary institution	36	57	34	26	17	170	35	49	29	15	9	137
<b>Cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>



Table 2. Employment status, occupation, annual gross income and main source of income

ages	Men						Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Number)												
	<b>Employment status (a)</b>												
107	Working full time	54	97	75	60	21	307	49	48	46	19	2	164
248	Working part time only	10	2	5	4	14	35	11	23	25	18	6	83
10	Not working (but not retired)	5	2	1	2	2	12	2	3	2	4	1	12
27	Cases	69	101	81	66	37	354	62	74	73	41	9	259
27													
2													
	<b>Occupation (b) (c)</b>												
	Managers and administrators	5	15	20	10	6	56	2	5	6	4	—	17
	Professionals	21	33	20	15	9	98	23	25	16	11	1	76
248	Para-professionals	2	8	5	3	—	18	4	9	4	1	—	18
16	Tradespersons	14	12	12	7	5	50	2	1	2	2	—	7
92	Clerks	5	9	4	1	5	24	13	19	17	6	4	59
64	Salespersons & personal service workers	11	10	6	15	2	44	14	6	11	3	1	35
1	Plant & machine operators, & drivers	1	3	6	4	3	17	—	—	4	4	—	8
293	Labourers & related workers	5	9	6	9	3	32	2	5	10	5	2	24
5	Not stated	—	—	1	—	2	3	—	1	1	1	—	3
21	Cases	64	99	80	64	35	342	60	71	71	37	8	247
25													
58													
12	<b>Annual gross income</b>												
	No income	3	—	1	—	—	4	3	15	11	26	10	65
3	\$1-\$7,000	13	3	3	—	13	32	8	17	9	9	14	57
4	\$7,001-\$9,000	1	—	1	4	14	20	2	1	7	16	23	49
	\$9,001-\$11,000	—	—	—	2	7	9	1	2	7	6	12	28
2	\$11,001-\$13,000	1	1	1	3	3	9	3	7	4	3	7	24
63	\$13,001-\$15,000	3	—	3	4	3	13	6	4	3	2	4	19
136	\$15,001-\$17,000	4	3	2	7	2	18	5	1	9	6	1	22
83	\$17,001-\$19,000	2	1	2	4	6	15	2	—	6	4	1	13
137	\$19,001-\$21,000	3	10	4	6	6	29	1	5	4	1	1	12
	\$21,001-\$23,000	2	8	6	1	—	17	6	3	4	—	1	14
421	\$23,001-\$30,000	22	14	12	10	10	68	24	18	13	1	2	58
	\$30,001-\$40,000	13	33	20	15	2	83	6	13	8	5	—	32
	\$40,001 or more	7	28	27	18	9	89	1	7	4	6	—	18
	Not stated	4	2	1	6	4	17	1	4	1	1	3	10
	<b>Main source of income</b>												
	Wages or salary	57	82	60	47	21	267	58	59	57	27	4	205
	Own business/partnership (d)	7	18	18	15	6	64	2	12	13	8	1	36
	Government pension (e)	7	3	2	5	29	46	4	7	6	22	40	79
	Superannuation	—	—	1	5	10	16	—	—	—	1	10	11
	Investment/interest	1	—	1	6	11	19	1	5	2	3	13	24
	Other	—	—	—	1	1	2	—	—	2	—	—	2
	No income	2	—	1	—	—	3	3	14	10	25	10	62
	Not stated	4	—	—	1	1	6	1	—	—	—	1	2
	Cases	78	103	83	80	79	423	69	97	90	86	79	421

(a) Employed full-time, part-time or not working.

(b) Employed full-time or part-time.

(c) Classified using the Australian Standard Classification of Occupations (see Appendix G).

(d) Own business or share in partnership.

(e) Any government pension or cash benefit.

Note: Employment status, annual gross income and main source of income relate to respondent only (not partner).

**Table 3. Systolic and diastolic blood pressure**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Systolic blood pressure (mmHg) (a)</b>												
Less than 100	2.5	2.4	—	—	—	1.3	6.1	8.8	3.3	2.3	—	4.9
100-109	8.6	6.3	8.8	3.3	1.1	6.4	22.0	37.6	21.2	7.2	—	20.8
110-119	13.0	26.8	16.6	3.7	6.4	15.0	44.6	23.5	24.8	14.3	5.4	25.8
120-129	26.8	27.5	17.0	17.6	12.5	21.9	23.4	16.7	20.9	19.6	21.5	20.4
130-139	25.3	20.4	24.9	38.6	26.5	26.2	3.9	10.3	18.7	24.0	23.0	13.9
140-149	16.5	9.4	20.7	15.7	23.1	16.3	—	3.0	5.7	18.7	16.7	6.8
150-159	6.1	3.2	9.2	6.2	14.4	7.0	—	—	3.3	8.4	17.1	4.1
160-169	1.2	0.8	2.8	4.8	8.3	2.8	—	—	2.2	3.4	9.9	2.2
170 or more	—	3.2	—	10.2	7.6	3.2	—	—	—	2.1	6.5	1.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmHg)											
Mean	129	127	132	140	143	132	114	114	121	133	142	122
10th centile	109	111	111	122	125	112	101	100	105	110	125	104
Median	130	124	133	134	140	133	114	111	121	132	140	123
90th centile	147	142	151	177	164	153	125	134	142	153	165	145
Standard error of mean	1.9	1.6	1.7	1.9	1.5	0.8	1.4	1.3	1.5	1.5	1.6	0.8
	(Per cent)											
<b>Diastolic blood pressure (mmHg) (a)</b>												
Less than 60	5.2	0.8	—	1.1	—	1.8	6.7	1.5	1.2	—	1.1	2.6
60-64	4.9	0.8	1.4	—	2.7	2.1	7.8	10.3	9.9	—	1.1	6.9
65-69	10.1	3.9	5.2	—	1.5	5.0	24.9	18.5	10.0	7.4	3.3	14.9
70-74	7.9	19.0	13.1	5.1	13.3	12.0	21.4	25.2	13.2	8.0	9.1	17.2
75-79	21.6	19.7	14.1	13.9	9.8	17.0	22.3	17.4	19.0	13.3	16.8	18.4
80-84	15.5	26.7	22.6	15.7	22.7	20.7	13.0	13.4	16.7	27.3	34.1	18.6
85-89	17.9	17.3	19.4	16.8	15.2	17.6	3.9	7.3	16.9	24.0	16.0	11.8
90-94	11.8	3.1	7.7	25.5	11.0	10.7	—	6.3	9.8	9.5	9.1	6.1
95-99	3.9	2.4	10.6	9.9	12.1	6.8	—	—	2.2	4.9	6.2	1.9
100-104	1.2	3.2	3.8	4.0	7.6	3.4	—	—	—	3.6	3.3	0.9
105-109	—	—	1.1	1.4	1.5	0.6	—	—	1.2	1.0	—	0.4
110 or more	—	3.2	1.1	6.6	2.7	2.3	—	—	—	1.0	—	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmHg)											
Mean	79	81	84	89	86	83	72	74	78	84	83	77
10th centile	64	71	71	76	71	70	64	64	64	72	72	65
Median	80	81	83	88	85	83	72	72	79	84	82	79
90th centile	91	91	98	101	100	97	81	86	90	95	94	89
Standard error of mean	1.5	1.0	1.1	1.2	1.1	0.5	1.2	0.9	1.0	0.8	0.8	0.5
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>

(a) The average of two readings taken 5 minutes apart.

Table 4. Blood pressure: related statistics

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>When blood pressure last measured (a)</b>												
In the last three months	16.2	27.5	37.0	39.4	55.3	31.5	38.1	33.1	45.6	46.1	63.4	42.8
In the last six months	15.5	15.0	19.7	19.7	17.8	17.2	24.3	21.2	17.0	20.7	17.0	20.6
In the last year	26.3	29.2	12.0	19.7	13.6	21.6	16.5	26.8	16.5	13.9	11.3	18.1
In the last three years	14.0	15.7	14.1	15.3	9.8	14.1	13.6	10.3	8.8	8.8	2.2	9.6
More than three years ago	6.6	7.8	8.1	4.3	3.4	6.5	6.1	5.6	8.9	9.5	6.2	7.0
Never measured	5.2	1.6	2.8	—	—	2.4	—	0.8	—	—	—	0.2
Don't know	16.2	3.1	6.3	1.4	—	6.7	1.3	2.3	3.3	1.0	—	1.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high blood pressure (b)</b>	5.2	16.6	15.8	34.3	39.0	18.7	7.4	19.4	13.6	32.6	49.5	20.8
<b>On blood pressure tablets (c)</b>	1.2	—	4.6	21.2	31.9	8.3	—	—	4.5	17.7	35.0	8.0
<b>Hypertensives</b>												
Controlled (d)	1.2	—	1.1	13.9	17.1	4.7	—	—	3.4	9.5	28.8	5.8
Treated, uncontrolled (e)	—	—	3.5	7.3	14.8	3.6	—	—	1.2	8.2	6.2	2.2
Untreated (f)	5.2	9.5	15.8	17.9	15.5	11.6	—	—	4.4	3.4	16.4	3.5
<b>Total hypertensives</b>	6.4	9.5	20.4	39.0	47.4	19.9	—	—	9.0	21.1	51.4	11.5
<b>Normotensives (g)</b>	93.6	90.5	79.6	61.0	52.6	80.1	100.0	100.0	91.0	78.9	48.6	88.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>

(a) Q9. When did you last have your blood pressure measured?

(b) Q11. Have you ever been told that you have high blood pressure?

(c) Q12. Are you on tablets for blood pressure?

(d) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

(e) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(f) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(g) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

Note: Classifications of hypertension are those used in the WHO MONICA Project.

**Table 5. Plasma cholesterol and related statistics**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Plasma cholesterol (mmol/L) (a) (b)</b>												
Less than 3.00	5.4	—	1.6	—	1.9	2.0	2.8	—	—	—	—	0.8
3.00-3.99	19.6	13.0	6.3	1.7	4.7	10.7	12.5	21.9	8.9	1.5	6.1	11.8
4.00-4.99	37.6	33.0	26.5	21.8	14.0	28.9	34.8	38.0	34.4	13.7	12.0	29.6
5.00-5.99	25.0	33.0	34.2	42.6	44.9	34.0	27.8	33.3	36.0	35.8	39.5	33.4
6.00-6.99	8.9	17.0	25.7	24.6	25.2	18.8	11.1	6.8	17.7	32.7	27.7	16.6
7.00-7.99	3.5	4.0	5.6	7.9	9.3	5.4	11.0	—	2.9	11.9	8.9	6.5
8.00-8.99	—	—	—	1.4	—	0.2	—	—	—	4.4	3.0	1.0
9.00 or more	—	—	—	—	—	—	—	—	—	—	3.0	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmol/L)											
Mean	4.66	5.13	5.42	5.75	5.64	5.22	5.15	4.82	5.18	5.95	5.94	5.28
10th centile	3.28	3.84	4.20	4.68	4.50	3.80	3.60	3.65	4.05	4.76	4.86	3.82
Median	4.63	5.02	5.62	5.68	5.60	5.34	4.89	4.87	5.11	5.83	5.75	5.29
90th centile	6.20	6.22	6.83	6.92	6.99	6.74	7.40	5.92	6.40	7.40	7.65	6.90
Standard error of mean	0.18	0.11	0.13	0.11	0.10	0.06	0.34	0.13	0.10	0.10	0.12	0.07
	(Per cent)											
Cholesterol $\geq$ 5.5 mmol/L	21.4	35.9	53.6	59.6	56.1	41.8	22.2	30.6	32.3	60.9	63.4	37.0
Cholesterol $\geq$ 6.5 mmol/L	5.3	5.9	14.6	26.3	20.6	12.4	16.6	—	7.4	29.6	25.3	13.6
<b>Number of cases</b>	<b>59</b>	<b>81</b>	<b>68</b>	<b>65</b>	<b>67</b>	<b>340</b>	<b>33</b>	<b>57</b>	<b>70</b>	<b>67</b>	<b>66</b>	<b>293</b>
	(Per cent)											
<b>When blood cholesterol last measured (c)</b>												
In the last three months	6.4	5.5	16.9	15.0	16.7	10.9	4.8	7.3	10.0	18.3	10.9	9.2
In the last six months	3.9	4.8	9.2	10.2	21.2	8.3	2.6	1.5	4.4	13.1	7.3	4.8
In the last year	5.4	12.5	18.6	16.8	15.5	12.8	6.5	8.6	13.3	17.5	20.0	11.7
In the last three years	7.6	13.4	8.8	15.7	16.3	11.6	4.8	6.3	8.8	9.3	8.8	7.2
More than three years ago	—	3.2	5.7	4.0	9.1	3.6	3.5	3.0	9.1	3.6	4.3	4.6
Never measured	58.5	47.8	34.6	31.0	14.8	41.5	69.9	66.2	51.2	31.6	41.7	56.0
Don't know	18.2	12.8	6.3	7.3	6.4	11.3	7.8	7.1	3.3	6.7	6.9	6.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high cholesterol (d)</b>	<b>3.9</b>	<b>11.8</b>	<b>26.7</b>	<b>26.7</b>	<b>25.8</b>	<b>16.6</b>	<b>3.9</b>	<b>3.3</b>	<b>6.8</b>	<b>22.3</b>	<b>31.3</b>	<b>10.5</b>
<b>Treatment to lower blood fat (e)</b>	<b>—</b>	<b>3.9</b>	<b>4.9</b>	<b>7.3</b>	<b>9.1</b>	<b>4.2</b>	<b>—</b>	<b>—</b>	<b>1.2</b>	<b>4.6</b>	<b>12.4</b>	<b>2.5</b>
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q10. When did you last have your blood cholesterol measured?

(d) Q11. Have you ever been told that you have high cholesterol?

(e) Q13. Are you having treatment to lower your blood fat?

Table 6. HDL cholesterol and plasma triglycerides

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
(Per cent)												
<b>HDL cholesterol (mmol/L) (a) (b)</b>												
0.50-0.99	20.3	31.5	29.4	29.1	26.8	27.1	2.8	—	6.9	5.8	12.9	4.7
1.00-1.49	66.1	55.6	60.3	59.1	49.1	59.2	47.3	59.5	52.8	44.5	42.1	50.4
1.50-1.99	8.4	10.8	8.9	11.9	17.0	10.6	31.9	26.3	36.1	31.5	26.1	30.5
2.00-2.49	—	—	—	—	1.3	0.2	18.1	9.1	1.3	13.8	7.4	10.4
2.50 or more	—	—	—	—	1.3	0.2	—	1.3	—	4.4	1.3	1.1
Not stated	5.1	2.0	1.4	—	4.5	2.7	—	3.9	2.8	—	10.2	2.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmol/L)												
Mean	1.15	1.14	1.14	1.19	1.21	1.16	1.56	1.52	1.42	1.55	1.42	1.50
10th centile	0.87	0.85	0.82	0.81	0.76	0.83	1.07	1.16	1.01	1.10	0.88	1.07
Median	1.10	1.10	1.11	1.20	1.11	1.11	1.47	1.49	1.40	1.46	1.40	1.43
90th centile	1.49	1.50	1.42	1.62	1.60	1.50	2.10	2.06	1.80	2.14	1.90	2.06
Standard error of mean	0.04	0.03	0.03	0.03	0.05	0.02	0.10	0.05	0.03	0.04	0.04	0.02
(Per cent)												
<b>Plasma triglyceride (mmol/L) (b)</b>												
Less than 0.50	6.8	1.0	—	1.4	1.3	2.5	18.1	14.9	6.0	—	—	9.9
0.50-0.99	44.1	43.5	39.0	25.7	15.2	36.7	57.0	57.0	48.7	37.7	28.1	48.8
1.00-1.49	23.7	26.8	26.3	29.1	35.7	27.3	13.9	20.3	32.7	33.0	28.7	24.0
1.50-1.99	13.6	13.8	16.0	12.4	26.8	15.5	6.9	1.3	7.0	17.3	16.8	8.3
2.00-2.49	5.1	11.8	7.3	18.9	8.9	9.8	4.1	1.3	2.7	6.2	4.7	3.5
2.50-2.99	—	2.0	5.9	6.5	1.3	2.9	—	1.3	—	5.8	3.4	1.6
3.00-4.99	1.7	—	1.4	4.5	6.3	2.2	—	—	—	—	6.8	0.9
5.00 or more	—	—	2.8	1.4	—	0.8	—	—	—	—	1.3	0.2
Not stated	5.1	1.0	1.4	—	4.5	2.5	—	3.9	2.8	—	10.2	2.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmol/L)												
Mean	1.11	1.21	1.44	1.61	1.56	1.33	0.84	0.83	0.98	1.27	1.52	1.01
10th centile	0.60	0.62	0.68	0.80	0.80	0.63	0.44	0.45	0.53	0.72	0.74	0.49
Median	0.98	1.09	1.15	1.34	1.40	1.18	0.66	0.70	0.93	1.10	1.19	0.96
90th centile	1.93	2.20	2.52	2.71	2.32	2.20	1.66	1.37	1.50	2.22	2.90	1.66
Standard error of mean	0.09	0.07	0.12	0.10	0.07	0.04	0.12	0.06	0.04	0.05	0.10	0.04
<b>Number of cases</b>	<b>59</b>	<b>81</b>	<b>68</b>	<b>65</b>	<b>67</b>	<b>340</b>	<b>33</b>	<b>57</b>	<b>70</b>	<b>67</b>	<b>66</b>	<b>293</b>
(Per cent)												
<b>Told of high triglycerides (c)</b>	<b>1.2</b>	<b>3.1</b>	<b>7.8</b>	<b>18.3</b>	<b>14.0</b>	<b>7.2</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>6.9</b>	<b>7.3</b>	<b>1.9</b>
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q11. Have you ever been told that you have high triglycerides?

**Table 7. Smoking behaviour and alcohol consumption**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>(Per cent)</i>												
<b>Smoking behaviour</b>												
<b>Smoking status (a)</b>												
Cigarette smoker (b) (c)	33.2	23.6	17.8	22.6	14.0	23.7	33.0	23.5	22.4	21.1	9.8	23.7
Cigar and/or pipe only	—	2.4	1.1	—	5.7	1.5	—	—	—	—	—	—
Ex-smokers	9.1	33.9	38.7	39.4	50.4	30.9	12.6	27.3	21.4	20.2	29.5	21.4
Never smoked regularly	57.7	40.1	42.4	38.1	29.9	43.9	54.4	49.2	56.2	58.7	60.8	54.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>
<i>(Per cent)</i>												
<b>Manufactured cigarettes a day (d)</b>												
1-10	47.7	22.2	—	21.6	26.4	29.1	44.1	34.4	20.8	17.0	33.3	33.3
11-20	40.0	37.1	19.2	37.2	53.0	36.5	41.2	37.8	37.1	33.0	22.2	37.5
21-40	12.3	33.2	72.5	33.4	20.6	30.3	14.7	27.8	42.1	39.0	44.4	27.8
41 or more	—	7.6	8.3	7.8	—	4.2	—	—	—	11.0	—	1.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(Cigarettes)</i>												
Mean	13	22	32	22	16	20	14	16	19	22	17	17
Standard error of mean	1.4	2.7	5.9	3.9	2.3	1.5	1.9	1.9	2.4	3.1	2.9	1.1
<b>Number of cases</b>	<b>25</b>	<b>22</b>	<b>13</b>	<b>14</b>	<b>10</b>	<b>84</b>	<b>21</b>	<b>23</b>	<b>19</b>	<b>18</b>	<b>9</b>	<b>90</b>
<i>(Per cent)</i>												
<b>Alcohol consumption</b>												
<b>Usual frequency (e)</b>												
I don't drink alcohol	9.6	11.9	7.7	15.0	12.9	11.0	14.9	18.6	20.9	29.4	33.9	21.6
Less than once a week	39.6	24.5	28.3	25.5	28.1	29.9	52.4	29.8	26.2	28.8	31.3	35.3
On 1 or 2 days a week	35.6	26.8	20.7	12.4	12.9	24.1	24.0	29.6	24.7	17.9	7.3	22.5
On 3 or 4 days a week	10.3	19.6	18.4	13.5	6.4	14.3	4.8	15.1	9.1	3.6	7.6	8.5
On 5 or 6 days a week	2.5	13.4	8.8	14.3	10.6	9.2	3.9	4.6	6.7	3.4	6.2	4.9
Every day	2.5	3.9	16.1	19.3	29.2	11.4	—	2.3	12.4	16.9	13.8	7.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Usual consumption (f)</b>												
I donot drink alcohol	9.6	11.9	7.7	15.0	12.9	11.0	14.9	18.6	20.9	29.4	33.9	21.6
1 or 2 drinks	32.4	32.2	49.9	39.0	49.3	39.0	48.5	44.5	50.9	55.2	49.4	49.0
3 or 4 drinks	33.9	36.2	18.7	28.0	25.3	29.4	30.1	24.5	20.2	13.1	14.5	22.2
5 to 8 drinks	13.8	17.4	15.2	13.5	10.2	14.5	6.5	10.9	8.0	2.3	2.2	6.7
9 to 12 drinks	10.3	0.8	5.2	3.3	2.3	4.9	—	—	—	—	—	—
13 to 20 drinks	—	1.6	2.1	1.1	—	1.0	—	—	—	—	—	—
Not stated	—	—	1.1	—	—	0.2	—	1.5	—	—	—	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Alcohol index</b>												
Intermediate risk or more (g)	2.5	7.8	12.0	8.1	6.1	7.0	3.9	3.8	6.8	3.6	9.4	5.1
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe.

(c) Includes persons who smoke hand-rolled cigarettes.

(d) Current smokers of manufactured cigarettes.

(e) Q33. How often do you usually drink alcohol?

(f) Q34. On a day when you drink alcohol, how many drinks do you usually have?

(g) Men: average daily consumption of at least 5 drinks or occasional excess.

Women: average daily consumption of at least 4 drinks or at least 9 drinks in any one day.

} See Appendix F.

**Table 8. Height, weight and weight for height**

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Height (cm) (b)</b>												
Under 150	—	—	—	—	—	—	1.4	5.0	3.2	8.8	5.1	4.2
150-159	4.2	5.5	3.8	4.0	4.2	4.4	23.5	29.0	18.7	38.7	49.2	29.5
160-169	10.8	14.2	27.4	24.4	34.5	19.9	58.4	47.0	63.5	45.3	42.5	52.6
170-179	49.9	55.2	46.8	54.8	44.7	50.7	9.7	12.4	10.1	3.6	—	8.3
180-189	23.8	18.1	11.0	11.7	15.1	16.9	—	—	—	—	—	—
190+	2.5	—	4.6	1.4	—	1.8	—	—	—	—	—	—
Not stated	8.8	7.0	6.3	3.7	1.5	6.2	7.0	6.6	4.5	3.6	3.3	5.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	175.7	174.1	173.4	172.4	172.1	173.9	163.2	161.8	162.1	159.0	158.4	161.4
10th centile	166.0	163.0	164.0	162.0	161.0	165.0	155.0	152.0	153.0	150.0	151.0	153.0
Median	177.0	175.0	175.0	173.0	173.0	174.0	165.0	164.0	163.0	159.0	159.0	162.0
90th centile	186.0	182.0	182.0	181.0	182.0	183.0	170.0	170.0	170.0	167.0	165.0	169.0
Standard error of mean	1.10	0.75	0.90	0.74	0.65	0.38	1.06	0.80	0.65	0.56	0.48	0.33
	(Per cent)											
<b>Weight (kg) (c)</b>												
Less than 50	—	—	—	—	—	—	9.7	0.8	4.2	3.8	2.2	4.5
50-59	7.1	4.8	3.5	1.4	4.9	4.7	33.3	29.8	23.5	14.3	24.1	26.5
60-69	21.4	14.9	10.1	12.8	14.8	15.4	34.8	37.2	31.1	29.1	24.4	32.5
70-79	27.0	36.3	37.3	28.5	34.5	32.6	9.8	14.0	19.8	28.8	19.9	16.9
80-89	18.7	26.7	23.6	25.9	26.9	23.8	2.8	—	6.7	11.4	12.0	5.3
90-99	11.1	4.7	10.3	10.6	7.6	8.8	—	—	4.3	2.3	7.3	2.1
100-109	—	1.6	2.5	5.9	3.4	2.2	—	1.6	1.2	2.1	3.7	1.4
110 or more	4.9	0.8	2.5	8.0	—	3.3	—	0.8	—	—	1.1	0.3
Not stated	9.8	10.2	10.1	7.0	8.0	9.3	9.8	15.7	9.1	8.2	5.4	10.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(kg)											
Mean	77.6	76.6	79.5	83.7	78.5	78.8	60.6	63.7	66.5	69.0	71.4	65.3
10th centile	61.6	64.7	67.6	66.9	66.1	63.6	49.2	53.8	53.7	53.7	54.6	52.1
Median	77.2	76.6	77.7	81.3	78.2	78.1	61.3	61.9	65.0	69.8	67.4	64.6
90th centile	94.7	87.6	95.9	102.1	93.2	94.4	72.9	73.8	80.4	82.6	91.7	80.0
Standard error of mean	2.11	1.06	1.36	1.54	0.97	0.64	1.72	1.22	1.20	1.13	1.50	0.62
	(Per cent)											
<b>Weight for height (d)</b>												
Underweight	9.6	0.8	2.5	1.4	2.7	3.9	26.3	6.6	3.3	5.1	2.2	10.5
Acceptable weight	42.8	47.4	34.2	27.7	26.1	37.9	47.3	52.8	49.1	29.9	35.6	45.1
Overweight	26.5	37.7	42.2	40.9	49.6	37.5	12.5	19.1	29.8	33.5	26.9	22.5
Obese	8.6	3.9	9.5	23.0	13.7	10.4	4.2	5.8	8.8	23.3	29.9	11.6
Not stated	12.5	10.2	11.5	7.0	8.0	10.4	9.8	15.7	9.1	8.2	5.4	10.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(kg/m <sup>2</sup> )											
Mean	24.8	24.9	26.1	27.8	26.3	25.7	22.4	24.0	24.9	27.0	28.0	24.7
10th centile	20.0	21.1	22.6	22.8	22.0	21.8	18.5	20.3	20.6	21.2	21.7	19.7
Median	24.4	24.9	25.8	27.4	26.1	25.5	22.0	23.0	24.0	26.8	26.9	24.2
90th centile	29.9	28.2	30.5	35.8	32.0	30.5	27.4	27.7	29.7	33.3	35.0	31.2
Standard error of mean	0.57	0.28	0.39	0.49	0.32	0.19	0.64	0.48	0.41	0.49	0.58	0.25
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>63</b>	<b>91</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>409</b>

(a) Excludes pregnant women.  
 (b) Height in stockings feet.

(c) Weight in stockings feet and light street clothing.  
 (d) Based on body mass index (Wt-1/Ht<sup>2</sup>). See Appendix E.

**Table 9. Waist circumference, hip circumference and waist to hip ratio**

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Waist circumference (cm) (b)</b>												
							<i>(Per cent)</i>					
Less than 60	—	—	—	—	—	—	2.7	0.8	—	1.3	1.1	1.3
60-69	4.2	4.8	1.1	1.1	—	2.7	45.8	33.0	21.4	9.7	5.1	27.2
70-79	24.8	20.5	7.1	6.2	7.2	15.2	37.6	47.2	45.5	27.4	32.7	39.5
80-89	52.6	37.0	37.6	27.0	27.3	38.7	9.7	12.4	17.6	38.8	23.9	18.0
90-99	12.3	28.2	30.6	29.2	37.5	25.6	4.2	5.8	8.9	16.1	18.5	9.1
100-109	2.5	6.3	19.0	22.3	18.9	11.8	—	—	3.4	4.6	9.9	2.6
110 or more	3.7	3.2	4.6	14.2	9.1	6.0	—	0.8	3.3	2.1	8.8	2.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(cm)</i>					
Mean	83.9	86.8	91.7	95.8	94.6	89.3	71.0	74.0	78.9	83.0	86.7	77.1
10th centile	73.0	74.0	80.0	81.5	81.5	75.5	62.0	65.0	66.0	68.5	70.0	64.5
Median	84.0	86.0	91.5	93.5	93.0	88.5	70.0	71.5	76.5	82.5	83.0	76.0
90th centile	97.0	99.0	106.0	115.0	108.0	105.0	85.0	85.5	97.0	98.0	108.0	95.0
Standard error of mean	1.33	1.11	1.16	1.29	1.07	0.57	1.37	0.97	1.21	1.04	1.38	0.59
<b>Hip circumference (cm) (b)</b>												
							<i>(Per cent)</i>					
less than 85	2.7	3.9	—	—	—	1.7	2.8	6.6	1.2	—	—	2.7
85-89	3.7	6.3	3.5	—	—	3.3	19.4	9.9	5.7	3.8	4.0	10.0
90-94	18.7	8.7	9.4	5.5	8.3	11.0	31.9	23.9	11.1	15.6	8.3	20.3
95-99	28.7	29.2	25.3	15.7	14.8	24.5	12.5	24.8	22.3	9.5	24.8	18.8
100-104	22.8	34.5	36.3	32.8	37.9	31.8	22.2	13.2	26.7	21.1	13.8	19.6
105-109	16.0	9.4	12.7	19.0	18.2	14.4	1.4	15.0	15.3	17.7	12.0	11.4
110-114	4.9	5.5	6.7	12.8	12.1	7.5	7.0	4.1	10.1	19.1	9.8	9.0
115-119	1.2	0.8	6.0	4.8	5.3	3.1	2.8	—	2.1	6.5	11.3	3.6
120 or more	1.2	1.6	—	9.5	3.4	2.6	—	2.5	5.5	6.7	16.0	4.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(cm)</i>					
Mean	99.0	99.3	101.5	105.4	104.1	101.1	95.8	97.2	102.0	104.8	106.6	100.1
10th centile	90.5	89.0	94.0	95.0	95.0	92.0	88.0	87.5	91.0	92.5	94.0	89.0
Median	98.8	99.5	101.5	103.0	103.0	101.5	94.0	95.5	101.3	104.8	103.5	100.0
90th centile	109.0	108.5	110.0	117.5	113.0	111.0	105.0	108.0	110.5	116.5	122.5	113.0
Standard error of mean	1.06	0.77	0.72	0.87	0.75	0.39	1.27	1.05	0.96	0.90	1.18	0.51
<b>Waist to hip ratio</b>												
							<i>(Per cent)</i>					
Less than 0.699	—	0.8	—	1.1	—	0.4	16.6	10.6	12.4	8.7	2.2	11.3
0.700-0.799	21.4	11.1	6.0	3.3	6.1	11.1	69.5	68.6	54.3	48.2	45.7	60.1
0.800-0.899	58.3	57.5	44.4	40.1	39.4	50.2	13.8	19.9	24.3	36.3	39.0	24.0
0.900-0.999	16.4	26.7	37.3	43.1	42.4	30.4	—	0.8	6.7	6.7	10.2	3.8
1.000 or more	—	4.0	12.3	12.4	9.5	6.5	—	—	—	—	1.8	0.2
Not stated	3.9	—	—	—	2.7	1.4	—	—	2.2	—	1.1	0.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(Waist/Hip)</i>					
Mean	0.847	0.872	0.903	0.907	0.907	0.881	0.740	0.761	0.771	0.791	0.809	0.768
10th centile	0.774	0.796	0.812	0.820	0.824	0.793	0.681	0.696	0.696	0.713	0.731	0.694
Median	0.853	0.874	0.898	0.906	0.907	0.888	0.740	0.756	0.769	0.795	0.798	0.771
90th centile	0.920	0.951	1.009	1.000	0.996	0.978	0.810	0.846	0.884	0.880	0.905	0.853
Standard error of mean	0.008	0.007	0.008	0.007	0.006	0.003	0.008	0.006	0.006	0.006	0.006	0.003
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>63</b>	<b>91</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>409</b>

(a) Excludes pregnant women.

(b) The average of two measurements.



Table 10. Dietary behaviour and exercise during leisure time

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Eat fat on meat (a)</b>												
Usually	17.8	17.5	22.1	18.2	14.8	18.3	2.7	8.2	8.0	9.4	4.8	6.4
Sometimes	33.6	32.5	30.3	19.0	30.3	30.0	25.6	26.6	30.2	30.6	20.7	26.9
Rarely or never	48.6	50.0	47.7	62.8	54.9	51.7	71.8	65.2	61.8	60.0	74.5	66.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Add salt to food (b)</b>												
Rarely or never	58.1	53.2	48.8	51.2	47.3	52.6	69.1	60.5	63.2	45.6	48.3	59.6
Sometimes	28.2	29.3	32.4	27.0	34.5	29.9	29.6	24.9	27.9	35.1	31.6	29.1
Almost always or always	13.7	17.5	18.8	21.9	18.2	17.5	1.3	14.6	9.0	19.3	20.0	11.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Exercise during leisure time (c)</b>												
<b>Vigorous exercise (d)</b>												
Group 1 (e)	17.3	14.3	8.9	7.3	3.4	11.6	14.3	6.9	4.6	1.3	2.2	7.0
Group 2 (f)	46.3	24.8	20.2	17.6	9.8	26.6	29.9	33.4	20.6	14.1	6.2	23.5
Less vigorous exercise (g)	45.5	32.4	21.6	20.8	29.1	31.4	40.6	26.7	24.9	18.3	22.5	28.3
Walking	47.3	50.7	51.1	55.6	69.3	52.9	54.5	61.3	58.8	53.1	58.5	57.4
No exercise of any kind	18.6	30.2	32.5	35.3	22.8	27.5	25.2	25.9	32.2	38.6	29.5	29.3
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>

(a) Q37. How often do you eat the fat on meat?

(b) Q35. Do you add salt to your food after it is cooked?

(c) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.

(d) Exercise which made you breathe harder or puff and pant.

(e) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.

(f) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.

(g) Exercise which did not make you breathe harder or puff and pant.

Note: Respondents in the exercise table may be counted in more than one category.

**Table 11. Multiple major risk factors (a)**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Risk factors present (b)</b>												
No risk factors	62.7	66.9	60.2	51.5	51.1	60.2	59.9	75.7	69.7	57.1	62.0	65.8
One factor	30.5	27.6	30.0	29.2	42.8	30.9	38.8	24.3	27.0	30.1	35.9	31.1
Two factors	6.9	4.8	9.8	16.4	4.9	8.2	1.3	—	3.4	12.8	2.2	3.2
Three factors	—	0.8	—	2.9	1.1	0.8	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Risk factors present (c)</b>												
No risk factors	63.9	68.5	69.7	55.5	57.9	64.3	59.9	75.7	71.9	59.4	67.1	67.2
One factor	31.9	28.4	26.4	29.9	36.8	30.2	38.8	24.3	25.9	31.6	31.9	30.6
Two factors	4.2	1.6	3.8	13.1	5.3	4.9	1.3	—	2.2	9.0	1.1	2.2
Three factors	—	1.6	—	1.4	—	0.6	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>78</b>	<b>103</b>	<b>83</b>	<b>80</b>	<b>79</b>	<b>423</b>	<b>69</b>	<b>97</b>	<b>90</b>	<b>86</b>	<b>79</b>	<b>421</b>

(a) Risk factors were considered present if participants were smokers, had raised blood pressure or raised plasma cholesterol (whether fasted or not). Prevalence rates of zero, one, any two, or all three risk factors were determined, based on the definitions given below.

(b) Definition 1 (used in previous RFPS reports):

Raised blood pressure: diastolic blood pressure  $\geq 95$  mmHg.

Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.

Smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily (cigar and/or pipe smoking is not included).

(c) Definition 2 (used in the WHO MONICA project):

Hypertension: systolic blood pressure  $\geq 160$  mmHg and/or diastolic blood pressure  $\geq 95$  mmHg and/or on tablets for blood pressure.

Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.

Smoking: regular cigarette, cigar and/or pipe smokers.

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## RISK FACTOR SUMMARY

	Men	Women
	<i>(Per cent)</i>	
<b>Hypertension (a)</b>	18	17
<b>Raised cholesterol</b>		
$\geq 5.5$ mmol/L	53	47
$\geq 6.5$ mmol/L	19	16
<b>Smoking</b>		
Cigarette smokers	19	14
Cigarettes per day	21	15
<b>Multiple major risk factors (b)</b>		
At least one	44	32
Two or three	6	6
<b>Overweight and obesity (c)</b>		
Overweight	40	24
Obese	9	10
<b>Dietary behaviour</b>		
Usually eat fat on meat	17	7
Always add salt (d)	24	18
<b>Exercise during leisure time (e)</b>		
No exercise of any kind	26	32
Vigorous exercise	36	30
Walking	54	56

(a) See Table 4.

(b) See definition 1 in Table 11.

(c) See Table 8 and Appendix E.

(d) Almost always or always add salt to food after it is cooked (see Table 10).

(e) For recreation, sport or health fitness (see Table 10).

## Response analysis

Of the 1,500 persons selected from the electoral rolls, 285 were either no longer living at the address, were outside the study area for the duration of the study, in prison or had died leaving 1,215 potential respondents. Of these, 815 actually participated in the survey, giving an overall response rate of 67.1 per cent. Age-group and sex are based on electoral roll information.

The response rate was a little lower for men (66%) than women (68%) and lowest (62%) in the youngest age-group. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

### Response rates by age and sex

	Sample selected (a)	Ineligible (b)	Potential respondents (c)=(a)-(b)	Respondents (d)	Response rate (e)=(d)/(c)
	(Number)	(Number)	(Number)	(Number)	(Per cent)
Sex					
Male	736	152	584	385	65.9
Female	764	133	631	430	68.1
Age					
20-29	373	121	252	157	62.3
30-39	339	70	269	188	69.9
40-49	325	46	279	191	68.5
50-59	240	32	208	138	66.3
60-69	223	16	207	141	68.1
<b>Total</b>	<b>1,500</b>	<b>285</b>	<b>1,215</b>	<b>815</b>	<b>67.1</b>

### Comparison of respondents and non-respondents

	Respondents		Non-respondents	
	(Number)	(Per cent)	(Number)	(Per cent)
Sex				
Male	385	47.2	199	49.8
Female	430	52.8	201	50.2
Age				
20-29	157	19.3	95	23.8
30-39	188	23.1	81	20.2
40-49	191	23.4	88	22.0
50-59	138	16.9	70	17.5
60-69	141	17.3	66	16.5
<b>Total</b>	<b>815</b>	<b>100.0</b>	<b>400</b>	<b>100.0</b>

**Table 1. Marital status, living arrangements, country of birth and education level**

	<i>Men</i>						<i>Women</i>					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Marital status</b>												
Never married	47	14	6	—	3	70	50	11	6	2	3	72
Now married	26	78	78	53	58	293	31	72	84	61	48	296
Separated but not divorced	1	1	2	—	—	4	—	4	4	3	—	11
Divorced	1	4	3	2	4	14	1	3	7	10	2	23
Widowed	—	—	—	—	3	3	—	1	1	8	19	29
<b>Living arrangements</b>												
Living with legal spouse	26	77	78	53	58	292	31	72	83	61	48	295
Living with partner (defacto)	6	6	1	1	—	14	11	—	5	1	—	17
Living with other persons	40	7	4	—	3	54	37	11	9	11	2	70
Living alone	3	7	6	1	7	24	3	8	5	11	22	49
<b>Country of birth</b>												
Australia	69	80	67	38	53	307	72	73	81	64	57	347
Other Oceania	3	3	2	1	—	9	1	1	4	—	3	9
United Kingdom	2	6	13	10	10	41	4	7	8	7	3	29
Northern Europe	—	2	2	4	2	10	1	3	1	6	4	15
Southern Europe	—	2	2	1	2	7	1	1	2	4	2	10
Asia	1	2	2	1	1	7	3	4	5	2	—	14
Africa	—	1	1	—	—	2	—	—	1	1	3	5
North & South America	—	1	—	—	—	1	—	2	—	—	—	2
<b>Education level</b>												
Never attended school	—	—	—	—	1	1	—	—	—	—	1	1
Primary school	1	1	6	9	26	43	—	2	13	23	21	59
Some high school	26	41	25	15	16	123	27	42	40	41	36	186
Completed high school	27	24	24	12	16	103	25	25	22	12	10	94
Tertiary institution	21	31	34	19	9	114	30	22	27	8	4	91
<b>Cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>82</b>	<b>91</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>431</b>

Table 2. Employment status, occupation, annual gross income and main source of income

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Employment status (a)</b>												
72 Working full time	67	93	83	48	27	318	52	37	48	19	4	160
296 Working part time only	4	1	2	2	3	12	13	23	31	17	3	87
11 Not working (but not retired)	1	2	3	1	1	8	3	3	2	—	—	8
23 Cases	72	96	88	51	31	338	68	63	81	36	7	255
29												
<b>Occupation (b) (c)</b>												
Managers and administrators	6	24	26	10	7	73	—	2	7	2	—	11
295 Professionals	12	8	21	8	3	52	11	14	18	6	—	49
17 Para-professionals	11	13	5	9	2	40	5	5	4	1	2	17
70 Tradespersons	15	16	9	2	5	47	1	1	3	—	—	5
49 Clerks	10	13	5	4	4	36	31	18	25	13	3	90
Salespersons & personal service workers	5	8	5	4	1	23	13	11	15	9	2	50
347 Plant & machine operators, & drivers	3	6	6	5	3	23	—	4	1	—	—	5
29 Labourers & related workers	9	5	7	8	5	34	4	5	6	5	—	20
15 Not stated	—	1	1	—	—	2	—	—	—	—	—	—
10 Cases	71	94	85	50	30	330	65	60	79	36	7	247
14												
5												
2												
<b>Annual gross income</b>												
No income	1	1	—	—	—	2	10	19	18	22	7	76
\$1-\$7,000	6	4	—	1	13	24	7	15	14	22	27	85
\$7,001-\$9,000	—	—	1	2	7	10	1	2	7	3	9	22
\$9,001-\$11,000	—	1	2	1	5	9	2	4	9	4	6	25
1 \$11,001-\$13,000	3	1	1	1	10	16	8	9	—	6	5	28
59 \$13,001-\$15,000	2	—	3	1	1	7	10	4	4	2	—	20
186 \$15,001-\$17,000	5	3	3	7	3	21	3	5	6	4	2	20
94 \$17,001-\$19,000	7	4	3	2	2	18	10	2	6	3	2	23
4 \$19,001-\$21,000	13	7	1	3	6	30	11	8	9	6	1	35
2 \$21,001-\$23,000	3	7	9	5	—	24	7	5	2	2	—	16
\$23,001-\$30,000	19	23	14	6	6	68	12	8	8	3	1	32
\$30,001-\$40,000	10	19	25	10	5	69	1	7	11	2	2	23
\$40,001 or more	6	26	25	15	7	79	—	2	3	1	—	6
Not stated	—	1	2	1	3	7	—	1	5	4	10	20
<b>Main source of income</b>												
Wages or salary	66	76	70	45	23	280	65	55	58	29	6	213
Own business/partnership (d)	4	18	16	5	6	49	1	4	20	7	3	35
Government pension (e)	2	—	—	2	29	33	4	7	4	17	40	72
Superannuation	—	1	—	2	5	8	1	—	—	3	1	5
Investment/interest	—	1	2	1	5	9	1	5	3	8	15	32
Other	2	—	1	—	—	3	—	1	—	—	—	1
No income	1	1	—	—	—	2	10	19	17	20	6	72
Not stated	—	—	—	—	—	—	—	—	—	—	1	1
2 Cases	75	97	89	55	68	384	82	91	102	84	72	431

(a) Employed full-time, part-time or not working.  
 (b) Employed full-time or part-time.  
 (c) Classified using the Australian Standard Classification of Occupations (see Appendix G).  
 (d) Own business or share in partnership.  
 (e) Any government pension or cash benefit.

Note: Employment status, annual gross income and main source of income relate to respondent only (not partner).

**Table 3. Systolic and diastolic blood pressure**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
(Per cent)												
<b>Systolic blood pressure (mmHg) (a)</b>												
Less than 100	—	1.9	1.1	1.9	—	1.0	88.6	7.8	9.2	—	—	6.2
100-109	14.9	7.1	14.1	1.7	—	9.1	36.0	27.2	17.4	3.6	4.2	21.2
110-119	29.8	27.5	26.7	14.4	5.9	23.5	30.5	37.7	32.1	19.1	12.7	28.7
120-129	34.5	29.4	17.7	29.3	12.2	26.2	13.6	19.4	18.4	19.2	13.7	16.8
130-139	9.0	19.9	20.6	18.2	30.0	18.0	6.8	6.8	16.5	21.2	12.5	11.5
140-149	9.4	9.5	7.7	18.2	19.2	11.5	3.4	1.1	4.6	15.4	11.0	5.7
150-159	1.2	3.8	7.2	12.6	18.1	6.8	1.1	—	—	7.2	16.3	3.5
160-169	1.2	—	5.1	3.8	8.7	3.0	—	—	0.9	4.8	16.7	3.1
170 or more	—	0.9	—	—	5.9	1.0	—	—	0.9	9.5	12.8	3.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmHg)												
Mean	122	126	127	133	142	128	113	114	119	136	145	122
10th centile	106	111	109	117	123	109	100	100	100	113	116	101
Median	121	125	124	131	141	128	112	113	117	134	141	119
90th centile	140	141	151	156	167	150	130	127	138	168	177	149
Standard error of mean	1.7	1.3	1.7	2.0	1.6	0.8	1.6	1.2	1.4	1.8	2.6	1.0
(Per cent)												
<b>Diastolic blood pressure (mmHg) (a)</b>												
Less than 60	2.4	0.9	—	—	—	0.9	5.7	5.3	0.9	—	1.4	3.2
60-64	8.3	3.3	—	—	—	3.1	15.0	6.5	5.5	1.2	—	7.0
65-69	11.4	2.8	3.2	5.6	3.5	5.7	23.9	15.4	11.9	1.2	6.9	13.9
70-74	13.0	8.0	14.1	7.3	7.3	10.5	26.8	19.4	22.3	14.3	9.8	20.0
75-79	24.6	22.3	24.9	11.1	13.2	20.8	11.6	23.8	20.2	13.1	15.2	17.2
80-84	16.1	20.4	15.3	27.4	14.6	18.4	11.3	15.2	19.9	20.1	20.7	16.5
85-89	11.8	14.6	17.7	16.3	18.8	15.2	2.3	6.5	12.8	20.3	18.1	10.1
90-94	7.8	14.3	12.2	16.0	21.6	13.2	2.3	2.3	4.6	14.2	13.9	6.0
95-99	3.5	9.5	6.6	14.4	13.6	8.5	1.1	4.4	1.8	7.2	11.2	4.3
100-104	—	2.8	2.4	1.9	4.2	2.0	—	1.1	—	4.7	1.4	1.1
105-109	1.2	0.9	1.3	—	3.1	1.2	—	—	—	2.4	—	0.3
110 or more	—	—	2.4	—	—	0.5	—	—	—	1.2	1.5	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmHg)												
Mean	78	83	84	85	87	82	72	75	77	85	84	77
10th centile	64	72	72	73	74	70	62	63	66	72	71	64
Median	78	83	81	84	88	83	71	75	77	85	84	77
90th centile	90	96	96	97	99	96	83	88	88	99	96	92
Standard error of mean	1.4	1.0	1.0	1.2	0.9	0.5	1.1	1.1	0.8	0.9	1.1	0.5
<b>Number of cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>82</b>	<b>91</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>431</b>

(a) The average of two readings taken 5 minutes apart.



Table 4. Blood pressure: related statistics

	Men					Women							
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Per cent)												
<b>When blood pressure last measured (a)</b>													
6.2	In the last three months	18.9	33.2	36.0	43.5	61.0	34.7	40.2	45.5	32.1	50.2	57.9	43.7
21.2	In the last six months	14.9	17.0	19.0	24.0	15.7	17.7	23.4	11.0	15.3	15.4	20.7	17.1
28.7	In the last year	22.7	26.7	23.0	19.7	11.5	22.0	18.4	21.7	19.6	16.6	14.0	18.7
16.8	In the last three years	11.8	13.7	9.0	9.2	5.9	10.6	7.5	16.5	23.5	9.5	3.0	12.7
11.5	More than three years ago	13.7	4.7	6.4	1.7	1.4	6.7	2.3	2.1	8.6	4.8	2.9	3.9
5.7	Never measured	10.6	1.9	1.1	—	1.4	3.8	4.1	—	0.9	—	—	1.3
3.5	Don't know	7.4	2.8	5.5	1.9	3.1	4.5	4.1	3.2	—	3.5	1.5	2.6
3.1	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
3.2	Told of high blood pressure (b)	2.4	20.9	16.9	14.6	39.4	16.3	7.9	16.5	17.4	36.9	51.3	21.9
100.0	On blood pressure tablets (c)	—	4.3	6.6	9.0	30.3	7.4	2.3	2.3	7.3	20.2	44.3	11.4
<b>Hypertensives</b>													
122	Controlled (d)	—	0.9	2.1	5.4	17.4	3.6	1.1	1.1	6.4	11.9	25.9	7.0
101	Treated, uncontrolled (e)	—	3.3	4.5	3.6	12.9	3.9	1.1	1.3	0.9	8.4	18.4	4.4
119	Untreated (f)	5.9	9.9	10.9	14.6	18.1	10.7	—	4.2	1.8	16.8	13.9	5.6
149	<b>Total hypertensives</b>	<b>5.9</b>	<b>14.2</b>	<b>17.5</b>	<b>23.6</b>	<b>48.4</b>	<b>18.1</b>	<b>2.3</b>	<b>6.5</b>	<b>9.2</b>	<b>37.0</b>	<b>58.2</b>	<b>17.0</b>
1.0	<b>Normotensives (g)</b>	<b>94.1</b>	<b>85.8</b>	<b>82.5</b>	<b>76.4</b>	<b>51.6</b>	<b>81.9</b>	<b>97.7</b>	<b>93.5</b>	<b>90.8</b>	<b>63.0</b>	<b>41.8</b>	<b>83.0</b>
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	<b>Number of cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>82</b>	<b>91</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>431</b>

- (a) Q9. When did you last have your blood pressure measured?
- (b) Q11. Have you ever been told that you have high blood pressure?
- (c) Q12. Are you on tablets for blood pressure?
- (d) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.
- (e) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.
- (f) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.
- (g) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

Note: Classifications of hypertension are those used in the WHO MONICA Project.

**Table 5. Plasma cholesterol and related statistics**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Plasma cholesterol (mmol/L) (a) (b)</b>												
Less than 3.00	1.6	—	—	—	—	0.4	—	—	—	—	—	—
3.00-3.99	18.8	5.0	4.0	—	—	7.2	—	9.0	5.2	—	—	3.3
4.00-4.99	43.7	19.1	9.9	8.6	21.3	22.6	35.5	30.7	27.3	8.8	6.7	25.1
5.00-5.99	15.6	43.2	46.3	46.7	27.6	35.0	61.0	47.5	37.3	36.3	25.4	44.6
6.00-6.99	15.7	21.6	32.5	31.4	33.9	25.2	3.5	9.1	21.8	29.2	48.0	18.1
7.00-7.99	3.1	7.3	5.3	7.6	14.1	6.6	—	3.7	7.4	16.4	14.7	6.6
8.00-8.99	1.6	2.5	2.0	5.7	3.1	2.7	—	—	1.1	9.2	5.1	2.2
9.00 or more	—	1.3	—	—	—	0.3	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmol/L)											
Mean	4.92	5.65	5.78	6.01	5.95	5.57	5.11	5.14	5.47	6.29	6.32	5.51
10th centile	3.90	4.15	4.50	5.00	4.69	4.10	4.30	4.08	4.20	5.00	5.22	4.30
Median	4.70	5.60	5.74	5.80	6.00	5.60	5.04	5.10	5.50	6.09	6.40	5.63
90th centile	6.50	7.04	6.72	7.20	7.40	6.91	5.79	6.18	6.90	7.90	7.53	6.90
Standard error of mean	0.19	0.13	0.11	0.16	0.10	0.07	0.22	0.13	0.10	0.10	0.10	0.06
	(Per cent)											
Cholesterol $\geq$ 5.5 mmol/L	26.6	55.8	66.2	70.4	66.1	53.4	29.0	31.1	49.4	74.4	81.7	47.0
Cholesterol $\geq$ 6.5 mmol/L	12.5	21.6	18.6	23.8	25.9	19.4	—	5.5	16.2	39.7	45.2	16.2
<b>Number of cases</b>	<b>56</b>	<b>74</b>	<b>68</b>	<b>40</b>	<b>58</b>	<b>296</b>	<b>24</b>	<b>58</b>	<b>82</b>	<b>68</b>	<b>62</b>	<b>294</b>
	(Per cent)											
<b>When blood cholesterol last measured (c)</b>												
In the last three months	1.2	6.2	11.4	16.1	15.3	8.4	3.0	7.8	4.9	8.2	4.1	5.5
In the last six months	—	7.1	7.9	12.9	11.8	6.7	3.4	5.5	10.1	14.3	8.1	7.4
In the last year	5.9	10.4	12.9	21.8	20.2	12.5	3.4	9.5	9.8	16.8	26.4	11.2
In the last three years	1.2	14.3	14.0	12.9	13.9	10.4	6.8	14.9	19.3	8.4	19.8	13.4
More than three years ago	2.4	6.2	13.5	7.1	7.0	6.9	1.1	4.2	7.3	8.4	12.7	5.7
Never measured	81.1	50.7	33.1	16.3	15.0	46.1	77.8	49.2	46.8	39.2	17.8	50.8
Don't know	8.3	5.2	7.2	12.8	16.7	8.9	4.5	8.9	1.8	4.8	11.2	6.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high cholesterol (d)</b>	1.2	11.4	12.2	32.6	15.3	12.3	4.5	9.7	7.9	22.5	21.1	11.3
<b>Treatment to lower blood fat (e)</b>	—	1.9	1.1	5.4	5.6	2.1	—	1.3	—	3.5	1.4	1.0
<b>Number of cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>82</b>	<b>91</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>431</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q10. When did you last have your blood cholesterol measured?

(d) Q11. Have you ever been told that you have high cholesterol?

(e) Q13. Are you having treatment to lower your blood fat?

Table 6. HDL cholesterol and plasma triglycerides

All ages	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
	<b>HDL cholesterol (mmol/L) (a) (b)</b>											
	Less than 0.50											
3.3	—	—	—	—	—	—	—	—	—	—	—	—
25.1	13.9	20.4	19.2	26.7	23.7	19.6	3.5	—	4.0	7.6	3.1	3.2
44.6	69.2	58.8	63.0	45.7	53.5	60.0	50.3	32.6	34.0	39.6	46.9	40.5
18.1	15.4	20.9	15.9	21.9	18.9	18.2	39.0	51.8	52.2	33.9	29.6	43.0
6.6	—	—	2.0	5.7	3.9	1.7	3.5	10.3	7.7	10.2	15.8	8.7
2.2	—	—	—	—	—	—	3.5	—	1.1	5.9	1.5	2.2
—	1.5	—	—	—	—	0.4	—	5.2	1.1	2.9	3.1	2.4
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(mmol/L)											
	Mean											
5.51	1.20	1.23	1.23	1.28	1.23	1.23	1.51	1.63	1.55	1.61	1.56	1.57
4.30	0.93	0.80	0.90	0.83	0.85	0.90	1.11	1.29	1.10	1.00	1.10	1.11
5.63	1.20	1.20	1.20	1.20	1.20	1.20	1.53	1.60	1.60	1.50	1.49	1.56
6.90	1.52	1.80	1.60	1.97	1.83	1.60	1.96	2.00	1.97	2.40	2.16	2.00
0.06	0.04	0.04	0.03	0.06	0.04	0.02	0.12	0.05	0.03	0.06	0.04	0.02
	<b>Plasma triglyceride (mmol/L) (b)</b>											
	Less than 0.50											
47.0	1.5	3.0	1.3	1.9	—	1.7	14.2	3.5	7.3	—	—	6.2
16.2	47.7	27.9	21.9	18.1	18.9	29.5	68.1	70.5	51.5	25.3	29.2	54.2
294	27.7	36.9	33.8	36.2	35.5	33.5	14.2	15.5	32.9	32.4	30.4	23.0
	18.5	16.6	25.8	20.9	11.0	19.0	3.5	3.5	5.1	13.3	21.5	7.6
	—	6.3	2.7	7.6	14.1	4.9	—	—	1.1	19.0	8.1	3.9
	1.5	1.8	4.0	1.9	10.2	3.2	—	—	1.1	2.9	3.1	1.0
5.5	1.5	5.0	10.6	10.5	10.2	6.6	—	1.8	—	4.3	4.6	1.7
7.4	—	2.5	—	2.9	—	1.0	—	—	—	—	—	—
11.2	1.5	—	—	—	—	0.4	—	5.2	1.1	2.9	3.1	2.4
13.4	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
5.7	(mmol/L)											
50.8	Mean											
6.0	1.11	1.49	1.56	1.87	1.70	1.48	0.76	0.85	0.97	1.49	1.46	1.02
100.0	0.67	0.70	0.74	0.72	0.80	0.70	0.48	0.50	0.60	0.70	0.75	0.50
	0.92	1.11	1.29	1.36	1.40	1.20	0.76	0.72	0.90	1.28	1.24	0.98
11.3	1.79	2.47	3.06	3.12	3.20	2.68	1.21	1.24	1.40	2.40	2.40	1.72
	0.08	0.13	0.10	0.30	0.09	0.06	0.11	0.07	0.04	0.07	0.08	0.03
1.0	<b>Number of cases</b>											
431	56	74	68	40	58	296	24	58	82	68	62	294
	(Per cent)											
	<b>Told of high triglycerides (c)</b>											
	—	6.2	4.2	14.6	12.5	6.0	—	2.3	—	4.8	5.6	2.0
	<b>Number of cases</b>											
	75	97	89	55	68	384	82	91	102	84	72	431

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q11. Have you ever been told that you have high triglycerides?

**Table 7. Smoking behaviour and alcohol consumption**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>(Per cent)</i>												
<b>Smoking behaviour</b>												
<b>Smoking status (a)</b>												
Cigarette smoker (b) (c)	24.3	14.6	16.1	25.1	17.1	19.4	19.5	17.5	11.0	9.5	5.4	14.0
Cigar and/or pipe only	—	1.9	1.3	—	1.7	1.0	—	—	0.9	—	—	0.2
Ex-smokers	22.7	34.8	37.3	41.8	61.0	36.2	13.2	21.5	21.1	14.2	18.4	17.8
Never smoked regularly	52.9	48.7	44.2	33.0	20.2	43.3	67.3	61.0	67.0	76.3	76.2	68.0
Not stated	—	—	1.1	—	—	0.2	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>82</b>	<b>91</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>431</b>
<i>(Per cent)</i>												
<b>Manufactured cigarettes a day (d)</b>												
1-10	14.5	22.8	15.9	25.2	31.8	19.9	55.8	38.7	30.5	62.7	33.3	45.9
11-20	53.3	38.6	42.0	33.0	31.8	42.9	29.0	37.3	36.1	24.7	66.7	33.9
21-40	32.1	38.6	35.0	41.7	27.3	35.0	15.2	23.9	33.4	12.7	—	20.1
41 or more	—	—	7.0	—	9.1	2.1	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(Cigarettes)</i>												
Mean	19	22	25	19	21	21	13	15	17	13	15	15
Standard error of mean	2.0	3.1	5.5	2.2	5.2	1.6	1.8	2.3	2.7	3.3	2.9	1.1
<b>Number of cases</b>	<b>19</b>	<b>15</b>	<b>14</b>	<b>12</b>	<b>10</b>	<b>70</b>	<b>16</b>	<b>16</b>	<b>11</b>	<b>8</b>	<b>3</b>	<b>54</b>
<i>(Per cent)</i>												
<b>Alcohol consumption</b>												
<b>Usual frequency (e)</b>												
I don't drink alcohol	9.4	10.9	17.7	11.1	27.2	13.9	23.9	31.1	30.0	48.5	45.5	33.3
Less than once a week	27.9	29.3	20.9	25.1	24.0	25.9	52.7	37.2	34.6	25.1	19.8	36.8
On 1 or 2 days a week	41.6	18.0	22.0	16.3	10.8	24.2	14.3	15.2	12.8	6.0	13.9	13.0
On 3 or 4 days a week	16.4	21.8	10.0	12.4	5.9	14.6	5.7	10.2	6.1	7.2	5.4	7.1
On 5 or 6 days a week	3.5	6.2	15.4	7.3	8.7	7.9	2.3	5.3	5.5	3.6	2.7	3.9
Every day	1.2	13.8	14.0	27.8	23.3	13.5	1.1	1.1	11.0	9.6	12.7	5.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Usual consumption (f)</b>												
I don't drink alcohol	9.4	10.9	17.7	11.1	27.2	13.9	23.9	31.1	30.0	48.5	45.5	33.3
1 or 2 drinks	29.1	34.2	37.9	47.1	45.6	36.8	38.8	47.7	55.4	43.0	39.2	45.1
3 or 4 drinks	34.8	38.8	27.7	23.3	16.0	30.4	25.2	17.8	12.8	7.2	12.5	16.6
5 to 8 drinks	15.3	13.8	12.4	14.8	11.1	13.7	10.9	3.4	1.8	1.2	2.7	4.7
9 to 12 drinks	8.3	0.9	3.2	1.9	—	3.4	—	—	—	—	—	—
13 to 20 drinks	3.1	1.5	1.1	—	—	1.4	—	—	—	—	—	—
Not stated	—	—	—	1.9	—	0.3	1.1	—	—	—	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Alcohol index</b>												
Intermediate risk or more (g)	4.3	6.2	7.7	11.3	9.8	7.1	1.1	3.2	3.7	6.0	5.6	3.4
<b>Number of cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>82</b>	<b>91</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>431</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe.

(c) Includes persons who smoke hand-rolled cigarettes.

(d) Current smokers of manufactured cigarettes.

(e) Q33. How often do you usually drink alcohol?

(f) Q34. On a day when you drink alcohol, how many drinks do you usually have?

(g) Men: average daily consumption of at least 5 drinks or occasional excess.

Women: average daily consumption of at least 4 drinks or at least 9 drinks in any one day.

} See Appendix F.

Table 8. Height, weight and weight for height

All ages	Men					Women (a)						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
	Height (cm) (b)											
	Under 150											
14.0	—	—	—	—	—	—	3.7	—	2.1	1.1	1.4	1.8
0.2	—	—	2.4	—	—	0.5	27.8	28.8	25.4	33.1	41.8	30.2
17.8	4.7	12.4	6.6	21.6	34.1	13.0	48.7	55.1	55.7	57.3	50.1	53.1
68.0	47.8	55.9	53.7	63.6	54.0	54.1	19.8	15.0	15.9	8.4	5.4	14.3
—	45.1	29.9	35.2	14.8	11.8	30.8	—	1.1	0.9	—	—	0.5
100.0	2.4	1.9	2.1	—	—	1.6	—	—	—	—	—	—
431	—	—	—	—	—	—	—	—	—	—	1.4	0.2
	Total											
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(cm)											
	Mean											
45.9	179.0	176.3	177.6	173.4	172.3	176.4	162.7	163.0	163.0	161.3	160.4	162.3
33.9	172.0	168.0	170.0	167.0	165.0	168.0	153.0	155.0	154.0	152.0	154.0	155.0
20.1	179.0	177.0	178.0	173.0	171.5	176.0	163.0	162.0	163.0	162.0	160.0	162.0
—	187.0	183.0	186.0	180.0	180.0	184.0	172.0	171.0	172.0	169.0	167.0	171.0
100.0	0.82	0.66	0.69	0.69	0.61	0.34	0.99	0.72	0.62	0.55	0.55	0.32
	Standard error of mean											
	(Per cent)											
	Weight (kg) (c)											
	Less than 50											
15	—	—	—	1.9	—	0.3	13.2	13.9	6.4	—	2.7	8.8
1.1	3.5	0.9	4.8	1.7	2.8	2.8	42.8	39.6	27.5	27.4	19.3	33.6
54	22.7	18.0	5.8	14.3	23.0	16.8	22.3	28.8	41.9	36.7	34.5	31.6
	39.5	32.3	31.7	41.8	28.6	35.1	13.5	9.4	14.1	21.4	30.8	16.0
	18.9	31.7	32.4	24.0	33.1	27.4	3.5	3.6	7.3	8.4	5.9	5.3
	8.3	11.8	20.1	12.8	11.1	12.6	1.2	2.5	0.9	2.4	4.1	2.0
	4.7	4.3	1.1	1.9	1.4	3.0	1.2	1.1	1.8	1.1	1.4	1.3
33.3	2.4	0.9	4.2	—	—	1.8	2.3	1.1	—	2.4	—	1.2
36.8	—	—	—	1.7	—	0.2	—	—	—	—	1.4	0.2
13.0	Total											
7.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3.9	(kg)											
5.8	Mean											
100.0	77.7	79.5	82.7	77.6	78.3	79.3	61.3	61.5	64.9	69.5	68.1	64.1
	64.5	65.1	69.4	66.7	67.3	66.6	47.5	48.8	51.6	56.4	55.2	50.5
	75.6	79.6	81.0	76.2	78.2	78.9	58.0	58.9	63.4	67.1	67.0	63.2
	94.7	91.5	96.7	93.3	92.0	94.3	77.2	73.1	80.0	87.3	81.7	79.9
33.3	1.71	1.09	1.32	1.43	1.03	0.60	1.99	1.58	1.07	1.26	1.20	0.66
45.1	Standard error of mean											
	(Per cent)											
	Weight for height (d)											
	Underweight											
16.6	10.6	7.1	4.5	3.6	4.5	6.7	32.0	28.6	11.9	2.4	4.1	19.2
4.7	54.0	42.2	37.0	47.5	30.3	43.6	45.0	49.0	52.6	45.4	38.6	46.8
—	27.1	41.7	48.0	41.8	51.2	40.2	16.0	15.5	29.0	33.1	37.6	23.8
—	8.3	9.0	10.5	5.4	13.9	9.2	7.0	6.9	6.4	19.2	18.4	10.1
0.3	—	—	—	1.7	—	0.2	—	—	—	—	1.4	0.2
100.0	Total											
	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(kg/m <sup>2</sup> )											
	Mean											
6	23.9	25.3	25.8	25.5	26.1	25.2	22.7	22.8	24.0	26.4	26.1	24.0
2	19.4	21.1	21.8	22.1	21.3	21.0	17.6	18.2	19.8	21.2	20.8	18.9
431	23.8	25.1	25.5	24.7	25.8	25.2	21.8	21.3	23.5	25.1	25.5	23.5
	28.6	29.8	30.2	29.0	30.7	29.9	28.3	27.1	28.9	32.0	31.6	30.1
	0.50	0.34	0.35	0.46	0.34	0.18	0.67	0.57	0.36	0.47	0.47	0.24
	Standard error of mean											
	Number of cases											
	75	97	89	55	68	384	80	86	102	84	72	424

(a) Excludes pregnant women.  
(b) Height in stockings feet.

(c) Weight in stockings feet and light street clothing.  
(d) Based on body mass index (Wt-1/Ht<sup>2</sup>). See Appendix E.

**Table 9. Waist circumference, hip circumference and waist to hip ratio**

	Men					Women (a)						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Waist circumference (cm) (b)</b>												
	(Per cent)											
Less than 60	—	—	—	—	—	—	1.8	—	—	—	—	0.5
60-69	1.2	—	1.1	—	1.4	0.7	38.8	25.2	16.2	6.0	5.6	21.8
70-79	19.6	8.0	6.1	3.6	1.4	9.4	35.3	51.8	43.1	29.8	35.9	40.4
80-89	44.7	30.8	14.8	20.3	5.6	26.7	18.2	17.2	30.6	40.4	33.3	25.5
90-99	18.0	37.0	38.6	45.0	39.4	33.6	1.2	1.1	6.4	12.0	15.4	5.6
100-109	13.0	15.7	30.7	16.5	42.5	21.5	3.5	3.6	1.8	7.2	9.8	4.5
110 or more	3.5	8.6	8.7	14.6	9.8	8.2	1.2	1.1	1.8	4.8	—	1.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	87.7	92.5	95.9	95.9	99.2	93.2	73.4	74.6	78.2	84.2	83.5	77.5
10th centile	74.5	80.0	83.0	85.0	90.5	79.0	62.0	65.5	67.0	71.5	72.5	65.5
Median	86.5	91.5	95.5	94.5	99.5	94.0	70.8	73.0	76.5	82.3	83.5	76.5
90th centile	103.5	104.0	108.0	110.5	109.0	107.5	84.5	84.5	89.5	101.5	99.0	92.0
Standard error of mean	1.46	0.98	1.09	1.37	0.89	0.55	1.49	1.17	0.86	1.15	1.11	0.55
<b>Hip circumference (cm) (b)</b>												
	(Per cent)											
less than 85	—	—	—	—	—	—	3.7	—	1.8	—	—	1.4
85-89	3.5	0.9	2.4	1.7	1.7	2.2	10.7	8.3	0.9	—	—	5.2
90-94	10.2	7.5	6.1	3.6	8.7	7.5	18.2	17.5	8.9	8.2	8.1	13.4
95-99	26.3	24.2	17.4	19.7	10.8	21.1	23.5	16.6	21.7	22.7	19.5	20.7
100-104	31.7	37.5	34.3	40.5	36.6	35.6	21.7	32.4	32.1	15.4	19.5	25.4
105-109	14.2	21.7	21.5	23.5	24.0	20.1	10.7	10.3	16.2	21.3	25.9	15.2
110-114	10.6	6.2	14.0	5.4	16.7	10.2	4.7	9.2	8.9	12.0	10.1	8.4
115-119	3.5	0.9	2.1	3.8	—	2.2	1.2	—	4.0	10.8	7.1	3.6
120 or more	—	0.9	2.1	1.9	1.4	1.1	5.8	5.8	5.5	9.6	9.8	6.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	101.1	101.9	103.9	102.5	103.3	102.4	99.1	100.8	103.0	106.6	105.8	102.3
10th centile	92.0	95.0	95.5	97.5	94.0	94.5	87.5	90.0	92.5	96.0	95.0	91.0
Median	99.5	101.5	102.5	100.5	103.5	101.8	97.5	99.5	102.5	105.3	104.5	101.5
90th centile	111.0	109.0	110.5	111.5	111.0	110.5	110.0	110.5	114.0	119.0	117.5	114.5
Standard error of mean	0.96	0.60	1.18	0.86	0.62	0.40	1.49	1.23	0.81	0.99	0.99	0.51
<b>Waist to hip ratio</b>												
	(Per cent)											
Less than 0.699	—	—	1.1	—	—	0.2	24.8	14.7	7.6	7.1	4.3	13.5
0.700-0.799	12.5	0.9	2.2	1.9	1.4	4.6	63.5	76.1	72.5	51.4	53.3	65.5
0.800-0.899	57.7	49.7	28.6	21.8	10.1	38.7	10.5	8.0	17.1	35.5	36.9	18.2
0.900-0.999	23.2	40.8	51.6	61.8	66.6	44.3	—	—	0.9	3.6	4.2	1.3
1.000 or more	1.2	7.6	16.6	10.9	22.0	9.9	—	—	0.9	1.2	—	0.4
Not stated	5.5	0.9	—	3.8	—	2.3	1.2	1.1	0.9	1.2	1.4	1.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(Waist/Hip)											
Mean	0.865	0.906	0.925	0.933	0.960	0.909	0.739	0.740	0.758	0.788	0.788	0.757
10th centile	0.790	0.828	0.839	0.871	0.897	0.821	0.681	0.687	0.702	0.703	0.706	0.691
Median	0.857	0.894	0.926	0.930	0.970	0.918	0.733	0.739	0.754	0.774	0.782	0.753
90th centile	0.943	0.986	1.020	1.000	1.018	0.996	0.801	0.795	0.824	0.877	0.862	0.839
Standard error of mean	0.008	0.006	0.008	0.007	0.006	0.004	0.006	0.005	0.005	0.007	0.007	0.003
<b>Number of cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>80</b>	<b>86</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>424</b>

(a) Excludes pregnant women.

(b) The average of two measurements.

Table 10. Dietary behaviour and exercise during leisure time

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Eat fat on meat (a)</b>												
Usually	20.6	19.5	9.7	19.9	16.0	17.4	4.6	7.8	10.7	6.0	7.0	7.2
Sometimes	34.9	42.7	45.3	27.4	23.7	36.6	26.1	29.3	34.6	17.7	18.1	26.4
Rarely or never	44.5	37.8	45.0	52.7	60.3	46.0	69.3	62.8	54.7	76.3	74.9	66.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Add salt to food (b)</b>												
Rarely or never	40.9	48.8	42.3	43.7	37.6	43.2	64.6	49.7	52.9	51.1	53.4	55.0
Sometimes	40.5	23.7	38.2	28.7	31.7	33.0	13.9	28.3	33.3	29.8	35.5	26.7
Almost always or always	18.7	27.5	19.5	27.6	30.7	23.8	21.4	22.0	13.8	19.1	11.1	18.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Exercise during leisure time (c)</b>												
<b>Vigorous exercise (d)</b>												
Group 1 (e)	20.3	9.4	13.5	3.6	1.4	11.4	10.0	4.2	2.4	1.1	1.4	4.6
Group 2 (f)	45.2	28.8	14.6	9.4	1.7	24.3	44.9	30.6	11.3	15.5	4.2	24.9
<b>Less vigorous exercise (g)</b>	38.2	34.1	32.6	24.0	15.7	31.2	37.4	23.0	25.7	21.3	16.1	26.2
Walking	60.3	45.5	57.3	52.9	52.6	53.9	70.7	42.4	59.3	46.5	54.6	55.5
No exercise of any kind	7.9	29.0	29.2	37.9	43.2	26.3	15.1	34.5	34.3	42.8	42.5	31.5
<b>Number of cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>82</b>	<b>91</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>431</b>

(a) Q37. How often do you eat the fat on meat?

(b) Q35. Do you add salt to your food after it is cooked?

(c) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.

(d) Exercise which made you breathe harder or puff and pant.

(e) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.

(f) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.

(g) Exercise which did not make you breathe harder or puff and pant.

Note: Respondents in the exercise table may be counted in more than one category.

**Table 11. Multiple major risk factors (a)**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Risk factors present (b)</b>												
No risk factors	64.3	56.9	57.2	43.5	47.0	55.9	77.1	73.6	75.8	50.0	43.0	67.6
One factor	33.3	36.5	39.3	45.6	42.5	38.3	19.5	20.9	20.5	38.0	51.4	26.9
Two factors	2.4	6.6	3.4	10.9	9.1	5.7	3.4	5.5	3.7	10.8	5.6	5.3
Three factors	—	—	—	—	1.4	0.2	—	—	—	1.1	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Risk factors present (c)</b>												
No risk factors	67.8	63.6	63.8	50.8	53.0	61.7	77.1	76.7	74.9	54.8	44.3	69.1
One factor	31.0	33.6	35.1	45.4	43.9	36.1	20.7	20.1	22.3	39.3	51.4	27.6
Two factors	1.2	2.8	1.1	3.8	3.1	2.2	2.3	3.2	2.8	4.8	4.2	3.2
Three factors	—	—	—	—	—	—	—	—	—	1.1	—	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>75</b>	<b>97</b>	<b>89</b>	<b>55</b>	<b>68</b>	<b>384</b>	<b>82</b>	<b>91</b>	<b>102</b>	<b>84</b>	<b>72</b>	<b>431</b>

(a) Risk factors were considered present if participants were smokers, had raised blood pressure or raised plasma cholesterol (whether fasted or not). Prevalence rates of zero, one, any two, or all three risk factors were determined, based on the definitions given below.

(b) Definition 1 (used in previous RFPS reports):

    Raised blood pressure: diastolic blood pressure  $\geq$  95 mmHg.

    Raised plasma cholesterol: plasma cholesterol  $\geq$  6.5 mmol/L.

    Smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily (cigar and/or pipe smoking is not included).

(c) Definition 2 (used in the WHO MONICA project):

    Hypertension: systolic blood pressure  $\geq$  160 mmHg and/or diastolic blood pressure  $\geq$  95 mmHg and/or on tablets for blood pressure.

    Raised plasma cholesterol: plasma cholesterol  $\geq$  6.5 mmol/L.

    Smoking: regular cigarette, cigar and/or pipe smokers.



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## RISK FACTOR SUMMARY

	Men	Women
	<i>(Per cent)</i>	
<b>Hypertension (a)</b>	18	13
<b>Raised cholesterol</b>		
$\geq 5.5$ mmol/L	48	47
$\geq 6.5$ mmol/L	19	18
<b>Smoking</b>		
Cigarette smokers	28	20
Cigarettes per day	20	15
<b>Multiple major risk factors (b)</b>		
At least one	45	37
Two or three	10	5
<b>Overweight and obesity (c)</b>		
Overweight	43	25
Obese	12	14
<b>Dietary behaviour</b>		
Usually eat fat on meat	18	7
Always add salt (d)	20	13
<b>Exercise during leisure time (e)</b>		
No exercise of any kind	29	30
Vigorous exercise	33	27
Walking	52	60

(a) See Table 4.

(b) See definition 1 in Table 11.

(c) See Table 8 and Appendix E.

(d) Almost always or always add salt to food after it is cooked (see Table 10).

(e) For recreation, sport or health fitness (see Table 10).

## Response analysis

Of the 3,000 persons selected from the electoral rolls, 342 were either no longer living at the address, were outside the study area for the duration of the study, in prison or had died leaving 2,658 potential respondents. Of these, 1,935 actually participated in the survey, giving an overall response rate of 72.8 per cent. Age-group and sex are based on electoral roll information.

The response rate was a little higher for men (75%) than women (71%) and lowest (65%) in the youngest age-group. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

### Response rates by age and sex

	<i>Sample selected (a)</i>	<i>Ineligible (b)</i>	<i>Potential respondents (c)=(a)-(b)</i>	<i>Respondents (d)</i>	<i>Response rate (e)=(d)/(c)</i>
	<i>(Number)</i>	<i>(Number)</i>	<i>(Number)</i>	<i>(Number)</i>	<i>(Per cent)</i>
Sex					
Male	1,453	175	1,278	957	74.9
Female	1,547	167	1,380	978	70.8
Age					
20-29	754	160	594	385	64.8
30-39	718	87	631	456	72.3
40-49	608	43	565	441	78.1
50-59	449	28	421	316	75.1
60-69	471	24	447	337	75.4
<b>Total</b>	<b>3,000</b>	<b>342</b>	<b>2,658</b>	<b>1,935</b>	<b>72.8</b>

### Comparison of respondents and non-respondents

	<i>Respondents</i>		<i>Non-respondents</i>	
	<i>(Number)</i>	<i>(Per cent)</i>	<i>(Number)</i>	<i>(Per cent)</i>
Sex				
Male	957	49.5	320	44.3
Female	978	50.5	403	55.7
Age				
20-29	385	19.9	209	28.9
30-39	456	23.6	175	24.2
40-49	441	22.8	124	17.2
50-59	316	16.3	105	14.5
60-69	337	17.4	110	15.2
<b>Total</b>	<b>1,935</b>	<b>100.0</b>	<b>723</b>	<b>100.0</b>

**Table 1. Marital status, living arrangements, country of birth and education level**

	<i>Men</i>						<i>Women</i>					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Marital status</b>												
Never married	112	36	16	4	9	177	109	22	12	6	10	159
Now married	62	169	180	145	133	689	78	187	167	118	116	666
Separated but not divorced	4	8	10	4	5	31	5	6	3	1	4	19
Divorced	1	11	14	5	3	34	7	15	31	12	10	75
Widowed	1	1	—	—	11	13	—	1	4	14	29	48
<b>Living arrangements</b>												
Living with legal spouse	60	165	180	143	133	681	78	185	165	119	114	661
Living with partner (de facto)	16	14	6	3	4	43	21	9	4	1	1	36
Living with other persons	90	20	16	4	2	132	89	25	29	20	12	175
Living alone	14	26	18	8	22	88	11	12	19	11	42	95
<b>Country of birth</b>												
Australia	150	180	148	87	101	666	172	172	137	95	119	695
Other Oceania	2	1	1	2	2	8	1	2	1	—	—	4
United Kingdom	18	23	35	26	20	122	21	27	35	21	21	125
Northern Europe	2	6	11	11	17	47	2	10	16	7	19	54
Southern Europe	4	5	17	23	17	66	—	12	17	25	10	64
Asia	4	4	4	8	1	21	3	8	8	3	—	22
Africa	—	4	3	1	3	11	—	—	1	—	—	1
North & South America	—	2	1	—	—	3	—	—	2	—	—	2
<b>Education level</b>												
Never attended school	—	—	—	1	1	2	—	—	—	—	1	1
Primary school	—	1	14	31	47	93	—	4	19	37	51	111
Some high school	72	80	85	60	58	355	68	91	100	60	67	386
Completed high school	70	72	55	35	32	264	72	68	53	37	38	268
Tertiary institution	38	72	66	31	23	230	59	68	45	17	12	201
<b>Cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>161</b>	<b>944</b>	<b>199</b>	<b>231</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>967</b>

Table 2. Employment status, occupation, annual gross income and main source of income

All ages	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
	<b>Employment status (a)</b>											
159	150	208	198	114	28	698	107	57	83	28	1	276
666	13	6	11	10	11	51	44	93	69	27	9	242
19	8	5	3	5	8	29	10	9	10	6	3	38
75	171	219	212	129	47	778	161	159	162	61	13	556
48	<b>Occupation (b) (c)</b>											
	13	30	45	22	5	115	4	9	8	3	—	24
661	28	44	39	16	4	131	25	34	19	10	2	90
36	12	27	9	10	2	60	14	12	16	5	—	47
175	36	53	47	29	12	177	7	4	5	3	1	20
95	19	17	16	10	2	64	47	47	56	14	3	167
	13	9	14	8	5	49	40	23	26	9	1	99
695	20	21	18	14	3	76	3	2	5	4	—	14
4	21	12	19	9	3	64	11	17	14	5	3	50
125	1	1	2	6	3	13	—	2	3	2	—	7
54	163	214	209	124	39	749	151	150	152	55	10	518
64	<b>Annual gross income</b>											
22	2	2	1	—	—	5	25	43	33	35	15	151
1	15	2	10	24	59	110	35	47	39	43	86	250
2	5	3	3	3	17	31	4	21	13	10	19	67
1	3	2	4	3	12	24	10	20	16	9	17	72
111	5	4	1	5	11	26	12	16	19	10	3	60
386	11	3	1	4	4	23	13	6	10	5	2	36
268	16	6	9	4	6	41	13	15	15	7	2	52
201	17	16	11	10	4	58	15	7	12	6	1	41
	17	18	14	10	13	72	19	13	4	4	1	41
967	13	18	16	13	2	62	16	5	18	5	1	45
	37	60	38	26	15	176	25	16	16	4	4	65
	35	53	58	25	9	180	5	16	8	4	2	35
	4	33	50	21	5	113	2	1	5	2	—	10
	—	5	4	10	4	23	5	5	9	7	16	42
	<b>Main source of income</b>											
	151	188	167	105	25	636	138	131	138	49	4	460
	10	26	37	15	14	102	5	21	16	5	8	55
	15	4	12	25	82	138	24	32	24	42	111	233
	—	—	—	5	24	29	—	—	1	3	6	10
	1	2	—	4	15	22	3	3	2	18	23	49
	2	3	3	3	1	12	5	4	3	—	4	16
	1	2	1	—	—	4	23	39	32	34	11	139
	—	—	—	1	—	1	1	1	1	—	2	5
	180	225	220	158	161	944	199	231	217	151	169	967

(a) Employed full-time, part-time or not working.

(b) Employed full-time or part-time.

(c) Classified using the Australian Standard Classification of Occupations (see Appendix G).

(d) Own business or share in partnership.

(e) Any government pension or cash benefit.

Note: Employment status, annual gross income and main source of income relate to respondent only (not partner).

**Table 3. Systolic and diastolic blood pressure**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Systolic blood pressure (mmHg) (a)</b>												
Less than 100	1.0	0.7	1.0	—	0.6	0.7	9.3	10.6	4.5	0.6	0.5	6.1
100-109	9.8	11.5	9.6	3.9	2.7	8.3	37.2	24.5	14.5	8.3	2.3	20.2
110-119	28.7	23.0	26.0	11.0	7.6	21.3	33.6	39.1	24.5	8.5	8.7	25.8
120-129	35.2	32.2	22.8	21.2	17.1	27.5	16.8	15.0	28.4	21.1	16.9	19.2
130-139	17.2	21.9	23.1	24.4	23.8	21.5	2.2	8.0	19.2	25.6	24.0	13.6
140-149	6.2	7.4	7.2	13.8	14.8	9.0	0.9	1.3	6.6	17.4	24.5	8.0
150-159	2.0	2.6	6.6	12.6	16.5	6.6	—	1.6	2.3	6.2	11.6	3.5
160-169	—	0.7	2.9	9.3	9.0	3.4	—	—	—	6.8	3.3	1.5
170 or more	—	—	0.8	3.8	7.3	1.7	—	—	—	5.5	8.1	2.0
Not stated	—	—	—	—	0.6	0.1	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmHg)											
Mean	123	124	127	137	141	129	112	114	122	136	140	122
10th centile	109	109	109	115	118	110	100	99	104	110	118	103
Median	123	123	125	135	139	128	110	114	122	134	139	120
90th centile	139	140	150	162	165	151	124	130	139	160	160	145
Standard error of mean	1.0	0.8	1.0	1.3	1.3	0.5	0.8	0.8	0.8	1.6	1.3	0.6
	(Per cent)											
<b>Diastolic blood pressure (mmHg) (a)</b>												
Less than 60	0.5	0.4	0.4	—	0.6	0.4	7.1	3.2	1.5	—	—	3.0
60-64	5.9	5.2	4.5	0.6	1.4	4.0	13.3	11.5	4.6	2.6	1.8	7.9
65-69	7.7	4.1	3.5	2.6	3.2	4.6	20.4	15.9	9.5	3.5	4.8	12.4
70-74	23.7	7.8	13.1	7.0	11.5	13.5	21.7	24.6	15.3	13.2	10.8	18.3
75-79	15.6	22.6	19.5	12.1	13.1	17.2	16.4	21.6	27.5	15.9	19.3	20.2
80-84	19.9	30.0	17.4	19.3	21.0	22.0	17.7	13.8	21.1	24.4	21.6	18.9
85-89	15.5	13.3	16.0	19.2	17.5	15.9	2.7	5.5	11.9	17.1	19.2	9.7
90-94	7.7	9.6	13.1	13.4	14.2	11.0	0.4	2.3	6.9	11.4	14.0	5.8
95-99	2.6	4.4	4.9	12.4	9.0	5.8	0.4	0.4	0.9	4.4	3.6	1.6
100-104	1.0	0.7	3.5	6.3	3.6	2.6	—	1.2	0.9	4.7	2.5	1.5
105-109	—	1.1	2.9	3.3	4.4	1.9	—	—	—	1.4	1.4	0.4
110 or more	—	0.7	1.2	3.8	—	1.0	—	—	—	1.5	1.1	0.4
Not stated	—	—	—	—	0.6	0.1	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmHg)											
Mean	79	81	83	87	85	82	72	73	78	83	83	77
10th centile	66	70	70	74	71	70	60	61	66	71	70	64
Median	78	81	82	87	84	82	72	74	78	82	83	77
90th centile	90	93	96	100	98	95	83	84	89	96	93	89
Standard error of mean	0.8	0.6	0.7	0.8	0.7	0.3	0.7	0.6	0.5	0.8	0.7	0.3
<b>Number of cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>161</b>	<b>944</b>	<b>199</b>	<b>231</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>967</b>

(a) The average of two readings taken 5 minutes apart.

Table 4. Blood pressure: related statistics

ages	Men						Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Per cent)												
	<b>When blood pressure last measured (a)</b>												
6.1	In the last three months	22.2	25.2	26.7	39.6	56.1	31.0	38.9	32.3	32.6	49.3	52.1	39.5
20.2	In the last six months	14.5	13.0	22.7	22.3	13.6	16.8	18.6	22.4	14.9	15.3	17.8	18.2
25.8	In the last year	18.9	19.3	24.6	20.5	13.5	19.6	23.4	20.0	28.0	18.0	18.5	21.9
19.2	In the last three years	12.8	22.6	16.0	9.6	10.3	15.1	12.4	15.1	16.7	14.2	7.0	13.4
13.6	More than three years ago	10.7	13.0	5.5	6.0	5.1	8.8	1.3	6.4	4.8	1.8	4.1	3.8
8.0	Never measured	5.9	2.2	0.6	0.7	—	2.4	1.8	0.9	—	—	—	0.7
3.5	Don't know	15.0	4.8	3.9	1.4	1.3	6.4	3.5	2.8	2.9	1.4	0.5	2.5
1.5	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
2.0	Told of high blood pressure (b)	9.8	13.0	16.8	30.7	34.3	18.4	8.8	12.6	15.3	34.6	37.0	19.0
100.0	On blood pressure tablets (c)	—	2.2	6.6	21.9	23.5	8.3	—	—	7.0	23.2	29.5	9.1
	<b>Hypertensives</b>												
122	Controlled (d)	—	2.2	4.7	10.6	15.5	5.1	—	—	6.1	16.1	23.7	7.0
103	Treated, uncontrolled (e)	—	—	1.9	11.3	8.0	3.1	—	—	0.9	7.2	5.8	2.1
120	Untreated (f)	3.6	7.4	11.3	17.0	13.9	9.5	0.4	1.6	0.9	12.4	10.4	4.0
145	Total hypertensives	3.6	9.6	17.9	38.9	37.4	17.7	0.4	1.6	7.9	35.6	39.9	13.2
0.6	Normotensives (g)	96.4	90.4	82.1	61.1	62.6	82.3	99.6	98.4	92.1	64.4	60.1	86.8
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	<b>Number of cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>160</b>	<b>943</b>	<b>199</b>	<b>231</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>967</b>

(a) Q9. When did you last have your blood pressure measured?

(b) Q11. Have you ever been told that you have high blood pressure?

(c) Q12. Are you on tablets for blood pressure?

(d) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

(e) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(f) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(g) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

Note: Classifications of hypertension are those used in the WHO MONICA Project.

**Table 5. Plasma cholesterol and related statistics**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Plasma cholesterol (mmol/L) (a) (b)</b>												
Less than 3.00	0.6	0.5	0.4	—	0.7	0.5	1.3	0.6	—	—	—	0.5
3.00-3.99	14.3	4.5	1.3	1.3	3.6	5.9	18.8	9.6	4.1	—	—	8.1
4.00-4.99	38.4	31.0	20.8	11.3	10.0	25.2	42.8	39.7	26.4	11.5	5.2	28.7
5.00-5.99	34.5	33.2	37.9	38.5	39.8	36.2	28.1	37.9	42.0	43.3	26.2	35.1
6.00-6.99	8.5	25.5	28.7	37.0	29.1	23.7	6.5	9.4	19.7	27.7	37.5	17.5
7.00-7.99	3.6	4.9	8.9	9.8	7.5	6.4	1.3	2.2	7.8	11.8	17.5	6.7
8.00-8.99	—	0.5	1.3	2.1	8.5	1.8	1.3	0.6	—	3.2	11.5	2.7
9.00 or more	—	—	0.7	—	0.8	0.3	—	—	—	2.5	2.1	0.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmol/L)											
Mean	4.92	5.46	5.76	5.96	6.02	5.52	4.67	5.06	5.49	6.11	6.61	5.43
10th centile	3.70	4.31	4.65	4.91	4.66	4.20	3.44	3.98	4.32	4.88	5.40	4.00
Median	4.89	5.33	5.62	5.98	5.89	5.58	4.40	5.00	5.40	5.90	6.50	5.63
90th centile	6.00	6.70	7.02	7.00	7.80	6.86	5.88	6.10	6.90	7.50	8.10	7.00
Standard error of mean	0.10	0.07	0.06	0.07	0.09	0.04	0.20	0.08	0.06	0.08	0.07	0.05
	(Per cent)											
Cholesterol $\geq$ 5.5 mmol/L	24.1	47.1	55.0	68.8	66.2	48.2	20.5	32.3	47.8	72.3	89.0	46.5
Cholesterol $\geq$ 6.5 mmol/L	7.9	16.1	20.1	29.3	30.1	18.5	3.8	7.0	16.4	31.2	51.0	18.1
<b>Number of cases</b>	<b>142</b>	<b>187</b>	<b>197</b>	<b>138</b>	<b>142</b>	<b>806</b>	<b>72</b>	<b>157</b>	<b>182</b>	<b>127</b>	<b>149</b>	<b>687</b>
	(Per cent)											
<b>When blood cholesterol last measured (c)</b>												
In the last three months	5.5	7.4	9.2	13.3	15.6	9.2	4.4	6.7	10.4	20.3	14.6	10.0
In the last six months	3.1	5.9	10.7	12.0	12.5	7.9	4.0	7.6	7.8	14.8	10.9	8.2
In the last year	3.8	13.7	17.8	17.7	15.5	12.7	8.4	11.1	14.5	13.2	20.6	12.7
In the last three years	3.5	14.4	12.1	12.5	7.4	9.8	3.5	6.1	11.4	16.4	8.4	8.3
More than three years ago	5.5	5.2	2.1	8.1	6.9	5.3	0.9	2.1	3.3	4.4	7.0	3.1
Never measured	60.8	46.7	42.4	29.6	30.3	44.9	71.2	63.1	49.3	27.7	33.7	53.0
Don't know	17.8	6.7	5.7	6.9	11.8	10.2	7.5	3.4	3.3	3.2	4.8	4.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high cholesterol (d)</b>	<b>2.8</b>	<b>8.9</b>	<b>18.2</b>	<b>17.1</b>	<b>22.3</b>	<b>12.1</b>	<b>4.0</b>	<b>7.9</b>	<b>15.8</b>	<b>27.8</b>	<b>27.4</b>	<b>14.2</b>
<b>Treatment to lower blood fat (e)</b>	<b>—</b>	<b>1.9</b>	<b>2.0</b>	<b>5.0</b>	<b>8.0</b>	<b>2.7</b>	<b>—</b>	<b>0.4</b>	<b>2.8</b>	<b>3.9</b>	<b>8.5</b>	<b>2.5</b>
<b>Number of cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>161</b>	<b>944</b>	<b>199</b>	<b>231</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>967</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q10. When did you last have your blood cholesterol measured?

(d) Q11. Have you ever been told that you have high cholesterol?

(e) Q13. Are you having treatment to lower your blood fat?



Table 6. HDL cholesterol and plasma triglycerides

ages	Men					Women							
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Per cent)												
	HDL cholesterol (mmol/L) (a) (b)												
0.5	—	—	—	—	0.8	0.1	—	—	—	—	—	—	
8.1	34.1	25.3	24.1	32.0	27.0	28.7	12.3	6.2	6.6	6.2	4.9	7.7	
28.7	47.7	51.5	56.8	51.9	57.6	52.4	42.0	47.6	42.6	46.5	45.3	44.7	
35.1	15.7	19.2	15.5	14.6	10.5	15.6	33.3	39.5	36.6	31.0	37.1	35.7	
17.5	1.9	3.1	2.4	0.6	2.1	2.1	8.7	4.3	7.1	12.3	7.1	7.6	
6.7	—	—	0.4	—	0.8	0.2	—	—	2.1	—	3.5	0.9	
2.7	0.6	0.9	0.8	0.8	1.3	0.9	3.6	2.3	5.0	4.0	2.0	3.4	
0.7	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
00.0	(mmol/L)												
	Mean	1.17	1.22	1.22	1.15	1.18	1.19	1.44	1.45	1.49	1.48	1.53	1.47
5.43	10th centile	0.81	0.80	0.84	0.80	0.80	0.80	0.96	1.07	1.03	1.04	1.08	1.03
4.00	Median	1.11	1.19	1.14	1.10	1.16	1.14	1.40	1.41	1.47	1.40	1.49	1.43
5.63	90th centile	1.53	1.60	1.73	1.60	1.60	1.60	1.99	1.84	1.99	2.05	2.00	1.97
7.00	Standard error of mean	0.03	0.02	0.02	0.02	0.03	0.01	0.07	0.03	0.03	0.03	0.03	0.01
0.05	(Per cent)												
	Plasma triglyceride (mmol/L) (b)												
46.5	Less than 0.50	3.8	0.9	1.5	0.6	—	1.7	7.3	7.4	1.6	1.5	—	4.3
18.1	0.50-0.99	43.2	42.7	29.3	13.4	24.2	33.3	65.7	60.6	56.6	27.0	27.1	51.3
	1.00-1.49	26.3	24.0	27.3	33.9	32.9	27.9	12.3	20.1	21.3	32.1	37.1	22.6
687	1.50-1.99	12.7	13.3	17.3	24.7	17.8	16.2	2.4	6.8	11.7	14.2	16.3	9.1
	2.00-2.49	5.9	4.9	7.7	9.1	8.7	6.9	7.5	1.4	2.7	12.4	6.5	5.6
	2.50-2.99	2.3	5.8	8.4	6.3	6.9	5.6	—	0.6	—	4.9	6.7	1.9
10.0	3.00-4.99	4.4	6.2	7.2	6.8	6.9	6.1	1.2	0.8	0.5	3.2	3.3	1.6
8.2	5.00 or more	0.6	1.3	0.4	4.2	1.3	1.4	—	—	0.6	0.8	0.8	0.4
12.7	Not stated	0.6	0.9	0.8	0.8	1.3	0.9	3.6	2.3	5.0	4.0	2.0	3.4
8.3	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3.1	(mmol/L)												
53.0	Mean	1.25	1.45	1.58	1.86	1.62	1.50	0.90	0.91	1.04	1.47	1.49	1.10
4.6	10th centile	0.60	0.63	0.70	0.86	0.78	0.65	0.51	0.50	0.60	0.70	0.80	0.57
100.0	Median	1.00	1.00	1.25	1.50	1.37	1.20	0.70	0.80	0.85	1.32	1.29	0.96
14.2	90th centile	2.20	2.80	2.80	3.10	2.85	2.76	1.75	1.49	1.67	2.49	2.60	1.95
	Standard error of mean	0.09	0.08	0.06	0.11	0.07	0.04	0.11	0.04	0.04	0.06	0.05	0.03
2.5	Number of cases	142	187	197	138	142	806	72	157	182	127	149	687
967	(Per cent)												
	Told of high triglycerides (c)	1.0	2.6	6.4	6.9	8.1	4.3	0.4	1.1	3.7	3.0	7.7	2.7
	Number of cases	180	225	220	157	161	943	199	231	217	151	169	967

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q11. Have you ever been told that you have high triglycerides?

**Table 7. Smoking behaviour and alcohol consumption**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>(Per cent)</i>												
<b>Smoking behaviour</b>												
<b>Smoking status (a)</b>												
Cigarette smoker (b) (c)	30.9	26.7	31.8	23.5	20.8	27.6	27.9	18.5	21.6	12.7	15.3	20.2
Cigar and/or pipe only	1.0	1.5	1.8	1.9	0.7	1.4	—	—	—	—	—	—
Ex-smokers	18.7	28.5	31.8	46.4	54.1	32.6	20.8	20.0	18.3	17.6	21.2	19.7
Never smoked regularly	49.4	43.3	34.5	28.3	24.4	38.5	51.3	61.1	60.1	69.7	63.5	59.9
Not stated	—	—	—	—	—	—	—	0.4	—	—	—	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>161</b>	<b>944</b>	<b>199</b>	<b>231</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>967</b>
<i>(Per cent)</i>												
<b>Manufactured cigarettes a day (d)</b>												
1-10	27.5	36.6	14.4	25.3	27.2	26.4	38.1	34.4	35.8	24.9	41.3	35.9
11-20	39.5	32.4	32.5	29.7	53.1	36.2	49.2	39.9	40.8	52.4	58.7	46.7
21-40	33.0	28.2	45.6	42.0	19.7	34.6	12.7	23.5	23.4	22.7	—	16.8
41 or more	—	2.8	7.5	3.0	—	2.8	—	2.2	—	—	—	0.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(Cigarettes)</i>												
Mean	18	18	24	22	16	20	14	16	16	16	13	15
Standard error of mean	1.3	1.6	1.5	2.8	1.6	0.8	1.0	1.7	1.3	2.0	1.1	0.6
<b>Number of cases</b>	<b>51</b>	<b>56</b>	<b>68</b>	<b>36</b>	<b>30</b>	<b>241</b>	<b>57</b>	<b>42</b>	<b>47</b>	<b>19</b>	<b>26</b>	<b>191</b>
<i>(Per cent)</i>												
<b>Alcohol consumption</b>												
<b>Usual frequency (e)</b>												
I don't drink alcohol	11.2	11.5	10.3	16.7	19.4	13.0	15.5	21.9	23.0	35.8	33.5	24.2
Less than once a week	27.6	27.4	23.3	25.8	21.9	25.6	52.2	46.5	38.6	31.1	37.2	42.9
On 1 or 2 days a week	38.0	23.7	23.2	20.0	16.0	25.9	20.4	15.7	16.9	8.5	12.5	15.6
On 3 or 4 days a week	17.4	18.9	17.8	13.1	11.6	16.4	8.4	10.2	10.1	6.1	2.3	7.9
On 5 or 6 days a week	5.4	11.5	12.9	8.1	12.7	9.8	2.2	3.9	5.4	4.5	1.8	3.5
Every day	0.5	7.0	12.5	16.4	18.5	9.3	1.3	1.9	5.9	14.1	12.6	5.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Usual consumption (f)</b>												
I donot drink alcohol	11.2	11.5	10.3	16.7	19.4	13.0	15.5	21.9	23.0	35.8	33.5	24.2
1 or 2 drinks	23.0	34.8	41.0	39.5	50.5	35.7	40.7	55.1	54.6	55.8	55.5	51.4
3 or 4 drinks	36.9	36.7	35.0	31.2	22.1	33.6	26.1	18.7	19.8	7.1	9.9	17.9
5 to 8 drinks	16.9	11.9	10.5	10.2	6.8	12.0	15.0	3.9	1.3	1.4	0.5	5.4
9 to 12 drinks	7.2	4.4	2.7	2.4	1.2	4.1	2.7	0.4	0.4	—	—	0.9
13 to 20 drinks	2.0	0.4	0.4	—	—	0.7	—	—	0.4	—	0.5	0.2
More than 20 drinks	1.0	0.4	—	—	—	0.4	—	—	—	—	—	—
Not stated	1.8	—	—	—	—	0.5	—	—	0.4	—	—	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Alcohol index</b>												
Intermediate risk or more (g)	6.6	5.2	5.7	6.3	6.1	5.9	5.7	2.1	2.6	1.8	4.0	3.4
<b>Number of cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>161</b>	<b>944</b>	<b>199</b>	<b>231</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>967</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe. (c) Includes persons who smoke hand-rolled cigarettes.

(d) Current smokers of manufactured cigarettes.

(e) Q33. How often do you usually drink alcohol?

(f) Q34. On a day when you drink alcohol, how many drinks do you usually have?

(g) Men: average daily consumption of at least 5 drinks or occasional excess.

Women: average daily consumption of at least 4 drinks or at least 9 drinks in any one day.

} See Appendix F.

Table 8. Height, weight and weight for height

All ages	Men					Women (a)						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
Height (cm) (b)												
Under 150	—	—	—	0.6	—	0.1	0.9	1.7	2.0	7.0	6.5	3.0
150-159	2.3	—	1.0	4.7	1.4	1.7	26.8	25.7	29.4	37.9	44.7	31.3
160-169	13.1	18.1	22.5	24.6	30.3	20.2	57.6	60.4	56.9	49.4	42.6	54.7
170-179	48.2	54.1	51.7	51.4	49.8	51.0	14.3	11.3	11.3	5.7	5.1	10.4
180-189	33.2	24.8	23.2	18.8	16.8	24.8	0.5	0.8	0.5	—	—	0.4
190+	3.1	3.0	1.6	—	—	1.9	—	—	—	—	—	—
Not stated	—	—	—	—	1.7	0.2	—	—	—	—	1.1	0.2
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
967	(cm)											
Mean	176.9	176.1	174.9	172.5	172.7	175.1	162.8	162.7	162.0	159.9	159.2	161.6
10th centile	168.0	168.0	165.0	162.0	164.0	166.0	155.0	153.0	154.0	152.0	151.0	153.0
Median	177.0	176.0	175.0	174.0	173.0	175.0	163.0	163.0	162.0	161.0	159.0	162.0
90th centile	185.0	185.0	184.0	182.0	181.0	184.0	171.0	171.0	170.0	168.0	167.0	170.0
Standard error of mean	0.64	0.45	0.44	0.56	0.46	0.23	0.50	0.45	0.39	0.48	0.43	0.21
	(Per cent)											
Weight (kg) (c)												
Less than 50	0.8	0.7	—	0.7	0.7	0.6	6.6	7.7	3.4	1.5	3.4	5.0
50-59	5.7	1.9	5.5	2.0	3.1	3.8	39.3	35.0	28.7	20.9	25.5	31.4
60-69	21.5	14.4	14.7	15.2	16.9	16.9	31.3	27.2	34.7	32.1	36.4	31.8
70-79	28.8	31.1	35.1	31.7	29.2	31.1	14.8	17.2	16.7	19.4	18.2	16.9
80-89	22.5	34.8	22.3	32.3	34.7	28.6	5.7	8.2	9.3	17.6	6.3	8.8
90-99	13.0	11.1	14.5	11.4	11.1	12.3	0.5	2.2	4.6	7.9	5.7	3.6
100-109	3.8	3.0	4.7	5.6	2.0	3.8	1.9	1.6	2.6	—	2.9	1.8
110 or more	3.8	3.0	2.7	1.2	1.2	2.6	—	0.4	—	0.6	0.5	0.3
Not stated	—	—	0.6	—	1.2	0.3	—	0.4	—	—	1.1	0.3
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
15	(kg)											
Mean	79.5	80.8	80.2	80.6	79.2	80.1	62.7	64.7	67.3	70.7	67.7	66.0
10th centile	64.0	66.1	64.0	65.4	65.2	64.7	51.0	50.3	53.9	56.8	53.5	52.5
Median	78.5	80.2	78.6	80.4	79.7	79.3	60.5	62.5	64.8	68.9	65.5	64.2
90th centile	97.8	96.2	98.0	95.7	94.3	96.2	78.3	82.8	86.0	89.2	86.5	83.9
Standard error of mean	1.30	0.83	0.82	0.88	0.84	0.42	0.94	0.90	0.81	0.99	0.95	0.42
	(Per cent)											
Weight for height (d)												
Underweight	5.2	2.6	3.7	0.7	2.7	3.2	18.7	15.9	4.7	2.7	4.8	10.9
Acceptable weight	54.9	40.0	39.8	28.3	33.2	41.3	60.2	50.4	56.9	33.9	40.3	50.3
Overweight	29.8	45.9	42.2	55.3	52.7	43.1	12.9	22.1	24.3	37.6	36.2	24.5
Obese	10.2	11.5	13.7	15.7	9.7	11.9	8.1	11.3	14.0	25.8	17.6	14.0
Not stated	—	—	0.6	—	1.7	0.4	—	0.4	—	—	1.1	0.3
100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(kg/m <sup>2</sup> )											
Mean	25.0	25.7	25.8	26.7	26.2	25.8	23.3	24.0	25.2	27.3	26.3	24.9
10th centile	21.1	21.5	21.5	22.5	22.3	21.5	19.4	19.3	20.8	21.5	21.0	19.9
Median	24.6	25.5	25.4	26.3	26.1	25.5	22.6	23.2	23.9	26.1	25.3	24.0
90th centile	30.2	30.3	30.7	31.0	29.8	30.5	28.3	30.2	31.9	33.9	33.3	31.8
Standard error of mean	0.36	0.24	0.23	0.24	0.24	0.12	0.33	0.31	0.29	0.41	0.35	0.16
Number of cases	180	225	220	158	161	944	190	221	217	151	169	948

(a) Excludes pregnant women.  
 (b) Height in stockings feet.

(c) Weight in stockings feet and light street clothing.  
 (d) Based on body mass index (Wt-1/Ht<sup>2</sup>). See Appendix E.

**Table 9. Waist circumference, hip circumference and waist to hip ratio**

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Waist circumference (cm) (b)</b>	(Per cent)											
Less than 60	—	—	—	—	—	—	3.4	0.8	—	—	—	1.1
60-69	3.1	2.2	1.2	—	—	1.6	40.2	30.3	22.8	7.9	8.8	25.0
70-79	26.9	11.9	12.1	3.4	3.7	13.6	40.0	43.7	42.8	31.0	33.0	39.1
80-89	40.4	36.3	29.9	26.3	18.6	32.3	12.2	13.7	19.3	34.2	33.0	20.2
90-99	17.4	36.3	38.9	42.5	42.2	33.4	2.4	9.1	8.5	15.1	15.8	9.1
100-109	7.6	9.3	12.7	23.5	29.1	14.3	1.5	1.0	4.9	9.2	7.7	4.1
110 or more	4.1	3.3	4.9	4.3	5.1	4.2	—	0.8	1.3	2.6	1.6	1.1
Not stated	0.5	0.7	0.4	—	1.3	0.6	0.5	0.6	0.4	—	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	86.0	89.2	90.8	93.9	95.5	90.2	71.7	75.0	77.9	84.0	83.1	77.2
10th centile	75.0	77.0	78.0	83.0	85.0	77.0	62.5	65.0	66.5	70.0	70.5	65.0
Median	84.0	89.0	91.0	93.5	95.0	91.0	70.0	73.0	75.3	82.0	81.0	76.0
90th centile	101.5	100.5	103.0	106.0	105.5	103.5	83.0	90.0	96.0	101.0	99.0	93.5
Standard error of mean	1.00	0.64	0.60	0.67	0.64	0.34	0.73	0.69	0.71	0.87	0.81	0.37
<b>Hip circumference (cm) (b)</b>	(Per cent)											
less than 85	1.3	0.7	—	0.7	—	0.6	4.7	2.8	0.9	—	0.5	2.2
85-89	3.3	2.2	2.1	0.7	2.0	2.2	15.5	10.6	5.1	3.2	1.8	8.4
90-94	17.3	10.0	14.3	7.1	5.4	11.8	20.0	18.1	17.4	9.4	9.8	16.0
95-99	25.5	25.6	24.4	28.6	19.5	24.9	22.2	20.1	28.3	21.8	26.2	23.4
100-104	25.0	28.9	30.3	24.5	30.2	27.6	19.7	18.9	20.8	19.0	23.7	20.2
105-109	15.9	22.6	17.4	26.6	27.8	21.0	6.5	13.2	12.8	18.5	17.1	12.7
110-114	7.2	7.0	7.8	7.6	8.9	7.6	6.5	7.9	6.6	15.1	11.4	8.8
115-119	1.5	1.5	2.5	3.6	3.8	2.3	1.0	4.0	2.7	3.9	2.3	2.7
120 or more	2.5	0.7	0.8	0.6	1.2	1.3	3.4	3.7	4.8	9.1	7.2	5.1
Not stated	0.5	0.7	0.4	—	1.3	0.6	0.5	0.6	0.4	—	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	100.4	101.4	101.1	102.3	103.0	101.4	97.3	99.7	100.8	104.6	103.1	100.5
10th centile	91.0	93.5	93.0	95.0	95.0	93.0	86.5	88.0	91.5	94.0	93.5	89.0
Median	100.0	101.5	101.0	102.5	103.0	101.5	97.0	99.0	99.0	103.0	101.5	99.5
90th centile	110.5	109.0	110.0	110.0	111.0	110.0	110.0	112.5	113.0	117.5	114.0	113.0
Standard error of mean	0.69	0.45	0.41	0.48	0.48	0.23	0.78	0.67	0.58	0.75	0.67	0.32
<b>Waist to hip ratio</b>	(Per cent)											
Less than 0.699	—	—	—	0.7	—	0.1	22.0	16.0	12.3	4.8	4.8	13.6
0.700-0.799	17.5	10.0	4.7	1.4	1.2	8.5	67.4	65.7	61.1	45.3	40.6	58.5
0.800-0.899	60.6	51.9	46.9	32.9	28.9	47.4	9.7	15.3	22.0	43.1	47.1	23.9
0.900-0.999	17.2	35.2	42.0	54.8	58.1	37.7	0.5	2.0	2.7	4.9	6.3	2.8
1.000 or more	1.8	0.7	5.3	7.1	9.2	4.0	—	—	0.9	1.4	—	0.4
Not stated	2.8	2.2	1.2	3.1	2.5	2.4	0.5	1.0	0.9	0.6	1.1	0.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(Waist/Hip)											
Mean	0.855	0.879	0.897	0.918	0.926	0.888	0.736	0.752	0.771	0.802	0.805	0.767
10th centile	0.786	0.799	0.830	0.850	0.859	0.809	0.686	0.689	0.694	0.716	0.725	0.691
Median	0.847	0.882	0.899	0.921	0.925	0.895	0.731	0.746	0.766	0.796	0.804	0.766
90th centile	0.934	0.945	0.967	0.985	0.991	0.963	0.801	0.821	0.853	0.885	0.881	0.849
Standard error of mean	0.006	0.004	0.004	0.004	0.004	0.002	0.004	0.004	0.004	0.005	0.004	0.002
<b>Number of cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>161</b>	<b>944</b>	<b>190</b>	<b>221</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>948</b>

(a) Excludes pregnant women.

(b) The average of two measurements.

Table 10. Dietary behaviour and exercise during leisure time

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Eat fat on meat (a)</b>												
Usually	16.4	22.6	18.2	14.1	19.0	18.3	6.4	5.6	5.5	8.5	7.6	6.5
Sometimes	31.7	34.5	32.4	37.0	27.6	32.8	26.5	27.6	29.0	26.0	25.3	27.0
Rarely or never	51.9	42.9	49.4	48.9	53.4	48.9	67.1	66.7	65.5	65.5	67.1	66.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Add salt to food (b)</b>												
Rarely or never	47.7	54.4	49.8	35.9	36.4	46.5	55.3	60.7	55.4	61.1	54.0	57.3
Sometimes	35.3	28.4	32.0	39.0	32.4	33.1	32.9	27.5	27.0	26.3	35.6	29.9
Almost always or always	16.9	17.2	18.2	25.1	31.1	20.4	11.9	11.8	17.6	12.6	10.4	12.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Exercise during leisure time (c)</b>												
<b>Vigorous exercise (d)</b>												
Group 1 (e)	16.6	10.3	7.1	4.0	4.2	9.6	12.3	5.6	4.2	4.1	0.5	6.1
Group 2 (f)	37.4	31.8	18.4	8.7	4.3	23.3	32.9	23.0	16.2	15.4	6.1	20.6
<b>Less vigorous exercise (g)</b>	37.1	34.1	26.5	17.2	25.2	29.6	32.0	24.9	17.6	20.4	16.3	23.4
Walking	48.4	56.3	49.4	46.8	60.5	52.0	61.6	58.7	54.4	68.0	56.4	59.6
No exercise of any kind	22.1	20.3	35.8	42.3	33.9	29.0	21.0	30.4	38.2	24.8	37.6	29.7
<b>Number of cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>161</b>	<b>944</b>	<b>199</b>	<b>231</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>967</b>

(a) Q37. How often do you eat the fat on meat?

(b) Q35. Do you add salt to your food after it is cooked?

(c) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.

(d) Exercise which made you breathe harder or puff and pant.

(e) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.

(f) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.

(g) Exercise which did not make you breathe harder or puff and pant.

Note: Respondents in the exercise table may be counted in more than one category.

**Table 11. Multiple major risk factors (a)**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Risk factors present (b)</b>												
No risk factors	63.7	60.7	50.4	42.4	44.6	54.6	68.1	74.8	64.9	55.3	41.5	63.3
One factor	31.8	30.7	36.7	40.6	43.7	35.4	30.1	22.5	32.0	34.1	45.3	31.4
Two factors	4.4	7.8	10.7	14.4	11.7	9.0	1.3	2.8	3.1	10.6	12.0	5.0
Three factors	—	0.7	2.1	2.5	—	1.0	0.4	—	—	—	1.2	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Risk factors present (c)</b>												
No risk factors	64.2	62.6	54.3	48.0	48.9	57.4	68.1	75.6	65.9	58.6	42.0	64.3
One factor	33.4	31.5	35.4	40.1	40.0	35.2	30.1	22.5	31.9	34.7	48.5	31.9
Two factors	2.3	5.9	9.6	11.9	11.1	7.2	1.8	2.0	2.2	6.7	8.8	3.7
Three factors	—	—	0.8	—	—	0.2	—	—	—	—	0.7	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>180</b>	<b>225</b>	<b>220</b>	<b>158</b>	<b>161</b>	<b>944</b>	<b>199</b>	<b>231</b>	<b>217</b>	<b>151</b>	<b>169</b>	<b>967</b>

(a) Risk factors were considered present if participants were smokers, had raised blood pressure or raised plasma cholesterol (whether fasted or not). Prevalence rates of zero, one, any two, or all three risk factors were determined, based on the definitions given below.

(b) Definition 1 (used in previous RFPS reports):

Raised blood pressure: diastolic blood pressure  $\geq$  95 mmHg.  
 Raised plasma cholesterol: plasma cholesterol  $\geq$  6.5 mmol/L.  
 Smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily (cigar and/or pipe smoking is not included).

(c) Definition 2 (used in the WHO MONICA project):

Hypertension: systolic blood pressure  $\geq$  160 mmHg and/or diastolic blood pressure  $\geq$  95 mmHg and/or on tablets for blood pressure.  
 Raised plasma cholesterol: plasma cholesterol  $\geq$  6.5 mmol/L.  
 Smoking: regular cigarette, cigar and/or pipe smokers.

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## RISK FACTOR SUMMARY

	Men	Women
	<i>(Per cent)</i>	
<b>Hypertension (a)</b>	13	10
<b>Raised cholesterol</b>		
$\geq 5.5\text{mmol/L}$	49	40
$\geq 6.5\text{ mmol/L}$	19	19
<b>Smoking</b>		
Cigarette smokers	28	23
Cigarettes per day	19	16
<b>Multiple major risk factors (b)</b>		
At least one	44	38
Two or three	8	6
<b>Overweight and obesity (c)</b>		
Overweight	40	23
Obese	9	11
<b>Dietary behaviour</b>		
Usually eat fat on meat	18	5
Always add salt (d)	17	14
<b>Exercise during leisure time (e)</b>		
No exercise of any kind	26	29
Vigorous exercise	37	28
Walking	48	57

(a) See Table 4.

(b) See definition 1 in Table 11.

(c) See Table 8 and Appendix E.

(d) Almost always or always add salt to food after it is cooked (see Table 10).

(e) For recreation, sport or health fitness (see Table 10).



## Response analysis

Of the 1,500 persons selected from the electoral rolls, 211 were either no longer living at the address, were outside the study area for the duration of the study, in prison or had died leaving 1,289 potential respondents. Of these, 963 actually participated in the survey, giving an overall response rate of 74.7 per cent. Age-group and sex are based on electoral roll information.

The response rate was about the same for men and women (75%) and lowest (66%) in the youngest age-group. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

### Response rates by age and sex

	Sample selected (a)	Ineligible (b)	Potential respondents (c)=(a)-(b)	Respondents (d)	Response rate (e)=(d)/(c)
	(Number)	(Number)	(Number)	(Number)	(Per cent)
Sex					
Male	736	94	642	481	74.9
Female	764	117	647	482	74.5
Age					
20-29	374	103	271	178	65.7
30-39	360	53	307	233	75.9
40-49	316	31	285	227	79.6
50-59	240	13	227	180	79.3
60-69	210	11	199	145	72.9
<b>Total</b>	<b>1,500</b>	<b>211</b>	<b>1,289</b>	<b>963</b>	<b>74.7</b>

### Comparison of respondents and non-respondents

	Respondents		Non-respondents	
	(Number)	(Per cent)	(Number)	(Per cent)
Sex				
Male	481	49.9	161	49.4
Female	482	50.1	165	50.6
Age				
20-29	178	18.5	93	28.5
30-39	233	24.2	74	22.7
40-49	227	23.6	58	17.8
50-59	180	18.7	47	14.4
60-69	145	15.1	54	16.6
<b>Total</b>	<b>963</b>	<b>100.0</b>	<b>326</b>	<b>100.0</b>

Table 1. Marital status, living arrangements, country of birth and education level

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Marital status</b>												
Never married	74	16	8	3	2	103	49	16	4	3	2	74
Now married	17	90	91	76	66	340	34	95	95	66	41	331
Separated but not divorced	—	2	2	3	—	7	1	2	2	5	1	11
Divorced	1	5	10	6	4	26	1	7	12	10	7	37
Widowed	—	—	—	2	5	7	1	—	3	5	18	27
<b>Living arrangements</b>												
Living with legal spouse	17	87	89	78	66	337	33	94	95	66	40	328
Living with partner (defacto)	11	8	9	3	—	31	10	6	5	—	1	22
Living with other persons	57	12	8	—	—	77	37	15	12	10	10	84
Living alone	7	6	5	9	11	38	6	5	4	13	18	46
<b>Country of birth</b>												
Australia	77	84	57	58	44	320	60	95	76	54	45	330
Other Oceania	—	5	3	—	—	8	3	1	2	1	1	8
United Kingdom	7	14	29	17	12	79	12	11	20	21	10	74
Northern Europe	—	—	8	3	11	22	3	3	6	4	3	19
Southern Europe	—	2	4	8	6	20	3	2	6	5	5	21
Asia	7	5	8	3	4	27	4	5	2	3	4	18
Africa	1	2	1	—	—	4	—	2	3	1	1	7
North & South America	—	1	1	1	—	3	1	1	1	—	—	3
<b>Education level</b>												
Never attended school	—	1	—	1	—	2	—	—	2	1	—	3
Primary school	1	1	2	6	18	28	—	4	3	6	16	29
Some high school	37	29	34	46	31	177	29	48	55	50	31	213
Completed high school	32	39	34	20	16	141	30	31	28	26	18	133
Tertiary institution	22	43	41	17	12	135	27	37	28	6	4	102
<b>Cases</b>	<b>92</b>	<b>113</b>	<b>111</b>	<b>90</b>	<b>77</b>	<b>483</b>	<b>86</b>	<b>120</b>	<b>116</b>	<b>89</b>	<b>69</b>	<b>480</b>

Table 2. Employment status, occupation, annual gross income and main source of income

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Employment status (a)</b>												
74 Working full time	73	107	103	69	14	366	48	39	45	14	1	147
331 Working part time only	12	3	2	8	7	32	19	44	38	22	3	126
11 Not working (but not retired)	4	2	4	3	2	15	4	3	3	5	—	15
37 Cases	89	112	109	80	23	413	71	86	86	41	4	288
27												
<b>Occupation (b) (c)</b>												
Managers and administrators	6	21	26	18	3	74	2	12	4	—	—	18
328 Professionals	13	27	20	11	2	73	16	10	11	—	—	37
22 Para-professionals	9	13	8	3	2	35	6	8	10	3	—	27
84 Tradespersons	21	21	18	7	8	75	—	3	1	2	1	7
46 Clerks	9	8	8	7	1	33	25	29	26	10	—	90
Salespersons & personal service workers	11	7	8	13	2	41	13	9	14	6	1	43
330 Plant & machine operators, & drivers	4	5	9	10	—	28	1	2	3	1	—	7
8 Labourers & related workers	12	6	6	7	2	33	3	9	10	11	2	35
74 Not stated	—	2	2	1	1	6	1	1	4	3	—	9
19 Cases	85	110	105	77	21	398	67	83	83	36	4	273
21												
18												
7												
3												
<b>Annual gross income</b>												
No income	—	1	1	3	1	6	6	20	19	18	5	68
\$1-\$7,000	10	2	2	8	22	44	15	25	15	25	34	114
\$7,001-\$9,000	4	1	—	—	8	13	3	11	10	11	16	51
3 \$9,001-\$11,000	—	—	2	—	5	7	4	12	7	4	7	34
29 \$11,001-\$13,000	2	1	2	4	7	16	5	5	12	8	4	34
213 \$13,001-\$15,000	4	1	5	3	3	16	4	1	7	3	—	15
133 \$15,001-\$17,000	8	6	4	3	3	24	9	3	10	2	—	24
102 \$17,001-\$19,000	8	2	6	5	7	28	8	6	3	6	1	24
\$19,001-\$21,000	9	4	5	5	6	29	8	4	6	1	1	20
480 \$21,001-\$23,000	7	5	6	11	1	30	9	6	4	2	—	21
\$23,001-\$30,000	23	28	14	13	6	84	11	10	13	3	—	37
\$30,001-\$40,000	12	34	22	14	3	85	3	9	6	4	—	22
\$40,001 or more	4	27	41	20	5	97	1	6	2	—	—	9
Not stated	1	1	1	1	—	4	—	2	2	2	1	7
<b>Main source of income</b>												
Wages or salary	75	81	69	54	11	290	64	60	71	27	2	224
Own business/partnership (d)	8	28	34	17	9	96	1	22	15	5	3	46
Government pension (e)	7	2	6	8	29	52	14	16	10	21	49	110
Superannuation	—	—	1	4	22	27	—	—	1	2	5	8
Investment/interest	1	1	1	3	4	10	—	4	2	14	5	25
Other	1	—	—	2	1	4	1	—	1	3	—	5
No income	—	1	—	2	1	4	6	17	15	16	5	59
Not stated	—	—	—	—	—	—	—	1	1	1	—	3
Cases	92	113	111	90	77	483	86	120	116	89	69	480

(a) Employed full-time, part-time or not working.

(b) Employed full-time or part-time.

(c) Classified using the Australian Standard Classification of Occupations (see Appendix G).

(d) Own business or share in partnership.

(e) Any government pension or cash benefit.

Note: Employment status, annual gross income and main source of income relate to respondent only (not partner).

Table 3. Systolic and diastolic blood pressure

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
(Per cent)												
<b>Systolic blood pressure (mmHg) (a)</b>												
Less than 100	—	—	2.7	—	—	0.6	7.1	13.3	3.4	4.4	—	6.8
100-109	8.3	15.5	7.3	2.6	1.2	8.3	37.2	35.6	20.6	11.5	4.3	25.9
110-119	33.6	33.8	25.5	21.8	9.4	27.5	40.8	29.5	31.7	22.7	11.7	29.9
120-129	26.2	28.9	27.7	26.5	19.4	26.5	11.4	12.4	20.3	14.1	17.5	14.6
130-139	24.0	11.3	23.4	24.2	20.8	20.2	3.4	7.6	6.6	21.5	17.3	9.4
140-149	7.0	5.6	8.0	10.7	15.3	8.3	—	1.6	9.9	13.5	22.9	7.1
150-159	—	4.9	3.6	4.2	22.0	5.1	—	—	6.1	9.0	6.7	3.3
160-169	—	—	0.9	2.6	7.0	1.4	—	—	0.7	1.0	5.6	1.0
170 or more	0.9	—	0.9	7.4	5.0	2.1	—	—	0.7	2.3	14.0	2.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmHg)												
Mean	124	122	126	133	142	127	111	111	122	128	141	119
10th centile	110	108	111	115	119	110	101	98	102	105	116	101
Median	123	120	125	129	139	125	110	110	119	127	138	117
90th centile	139	140	142	164	163	145	121	129	145	151	172	144
Standard error of mean	1.4	1.3	1.3	1.9	1.9	0.7	1.2	1.1	1.4	1.6	2.3	0.8
(Per cent)												
<b>Diastolic blood pressure (mmHg) (a)</b>												
Less than 60	7.9	—	1.9	—	1.5	2.7	13.9	10.5	3.0	3.3	1.3	7.8
60-64	10.1	4.9	1.8	—	2.6	4.7	27.3	20.0	7.4	3.1	6.3	15.4
65-69	16.1	9.2	9.0	5.9	12.0	10.9	26.5	12.0	15.0	16.4	13.7	17.4
70-74	22.3	21.1	11.6	11.0	14.9	17.3	17.5	24.4	22.3	20.9	20.9	21.2
75-79	20.5	26.8	14.5	26.3	20.2	21.7	8.0	17.8	23.7	23.2	25.0	18.0
80-84	12.6	21.8	23.6	22.6	14.4	19.0	4.5	7.6	11.3	22.1	12.2	10.1
85-89	5.7	9.9	15.3	16.6	18.8	11.8	—	6.0	9.7	7.5	12.4	6.1
90-94	3.0	1.4	12.5	5.0	10.6	5.7	1.1	1.6	3.6	2.5	6.3	2.6
95-99	0.9	2.8	6.3	4.4	2.3	3.2	—	—	3.3	—	1.8	0.9
100-104	0.9	2.1	0.9	6.4	2.6	2.2	1.1	—	0.7	—	—	0.5
105-109	—	—	0.9	1.7	—	0.4	—	—	—	1.0	—	0.1
110 or more	—	—	1.9	—	—	0.4	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmHg)												
Mean	73	78	82	82	80	78	67	70	76	76	77	72
10th centile	60	69	69	72	67	66	58	59	63	67	65	61
Median	73	78	81	82	79	79	67	70	76	77	76	73
90th centile	86	88	94	97	92	90	78	82	88	85	89	85
Standard error of mean	1.3	0.8	1.0	0.8	0.9	0.5	1.2	0.9	0.8	0.7	1.0	0.4
<b>Number of cases</b>	<b>92</b>	<b>113</b>	<b>111</b>	<b>90</b>	<b>77</b>	<b>483</b>	<b>86</b>	<b>120</b>	<b>116</b>	<b>89</b>	<b>69</b>	<b>480</b>

(a) The average of two readings taken 5 minutes apart.

Table 4. Blood pressure: related statistics

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>When blood pressure last measured (a)</b>												
In the last three months	20.5	26.1	30.7	40.7	46.0	29.9	40.5	40.0	29.1	37.9	45.0	38.3
In the last six months	20.4	18.3	18.0	19.5	19.4	19.1	17.7	19.1	24.6	21.9	11.2	19.2
In the last year	17.1	21.1	18.9	15.2	15.5	18.1	25.6	19.4	22.1	24.0	20.4	22.4
In the last three years	15.7	18.3	24.3	14.7	16.7	18.2	11.5	13.6	14.6	13.1	9.9	12.7
More than three years ago	7.4	11.3	5.4	8.3	1.2	7.4	3.5	6.7	6.6	3.1	11.7	5.9
Never measured	5.3	2.1	—	—	—	2.0	—	0.6	—	—	—	0.2
Don't know	13.5	2.8	2.8	1.5	1.2	5.3	1.1	0.6	3.0	—	1.8	1.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high blood pressure (b)</b>												
	8.7	16.2	23.4	21.9	27.3	17.8	4.8	18.7	24.4	23.9	36.9	19.0
<b>On blood pressure tablets (c)</b>												
	0.9	2.8	8.1	14.2	20.5	7.1	—	2.9	7.7	12.9	27.0	7.4
<b>Hypertensives</b>												
<b>Controlled (d)</b>												
	—	0.7	7.2	6.6	15.5	4.4	—	2.9	5.6	10.8	16.6	5.4
<b>Treated, uncontrolled (e)</b>												
	0.9	2.1	0.9	7.6	5.0	2.7	—	—	2.1	2.1	10.4	2.0
<b>Untreated (f)</b>												
	1.8	2.8	9.9	8.3	10.6	5.7	1.1	—	2.6	2.3	9.2	2.3
<b>Total hypertensives</b>	2.6	5.6	18.0	22.5	31.1	12.7	1.1	2.9	10.3	15.2	36.2	9.7
<b>Normotensives (g)</b>												
	97.4	94.4	82.0	77.5	68.9	87.3	98.9	97.1	89.7	84.8	63.8	90.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>												
	92	113	111	90	77	483	86	120	116	89	69	480

(a) Q9. When did you last have your blood pressure measured?

(b) Q11. Have you ever been told that you have high blood pressure?

(c) Q12. Are you on tablets for blood pressure?

(d) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

(e) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(f) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(g) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

Note: Classifications of hypertension are those used in the WHO MONICA Project.

Table 5. Plasma cholesterol and related statistics

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Plasma cholesterol (mmol/L) (a) (b)</b>												
Less than 3.00	—	—	—	—	1.3	0.1	—	—	—	—	—	—
3.00-3.99	18.1	6.3	1.9	0.9	1.5	7.3	18.5	8.5	3.2	3.4	2.0	8.6
4.00-4.99	38.6	30.7	22.5	14.3	11.1	26.5	44.6	35.5	31.4	16.1	8.6	31.1
5.00-5.99	22.2	43.3	28.7	39.7	41.3	33.7	29.0	39.7	37.5	39.4	25.3	34.5
6.00-6.99	13.2	17.3	35.1	25.2	31.2	22.6	8.0	10.7	21.7	21.7	33.4	16.5
7.00-7.99	7.0	1.6	7.8	18.3	12.1	8.0	—	3.0	6.2	11.1	19.4	6.0
8.00-8.99	—	—	1.0	1.6	1.5	0.6	—	1.7	—	3.9	9.3	2.1
9.00 or more	1.0	0.8	3.0	—	—	1.1	—	0.9	—	4.5	2.0	1.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmol/L)											
Mean	5.07	5.29	5.89	5.98	5.89	5.52	4.80	5.16	5.45	5.96	6.41	5.39
10th centile	3.70	4.16	4.50	4.63	4.82	4.10	3.81	4.08	4.31	4.30	4.83	4.08
Median	4.71	5.30	5.80	5.91	5.93	5.60	4.62	5.10	5.40	5.64	6.43	5.43
90th centile	6.80	6.46	7.13	7.12	7.10	6.98	5.80	6.53	6.80	7.40	8.19	6.86
Standard error of mean	0.18	0.10	0.11	0.09	0.10	0.06	0.17	0.12	0.08	0.12	0.14	0.06
	(Per cent)											
Cholesterol $\geq$ 5.5 mmol/L	29.1	40.9	62.1	72.3	63.2	49.2	18.5	34.6	40.6	61.7	74.8	40.2
Cholesterol $\geq$ 6.5 mmol/L	11.8	8.6	25.6	28.4	31.5	18.5	8.0	10.7	15.3	32.8	48.0	18.5
<b>Number of cases</b>	<b>85</b>	<b>102</b>	<b>103</b>	<b>85</b>	<b>73</b>	<b>448</b>	<b>51</b>	<b>91</b>	<b>103</b>	<b>79</b>	<b>64</b>	<b>388</b>
	(Per cent)											
<b>When blood cholesterol last measured (c)</b>												
In the last three months	1.8	4.9	6.3	8.3	9.4	5.4	5.8	2.9	5.1	3.6	10.6	5.2
In the last six months	2.6	7.0	9.0	10.5	10.3	7.1	3.5	1.3	9.6	7.1	8.6	5.3
In the last year	6.2	13.4	14.4	24.6	20.5	14.1	2.3	4.8	14.9	21.2	13.5	9.5
In the last three years	3.5	13.4	17.2	11.4	10.6	10.9	3.5	7.9	15.4	13.1	9.9	9.2
More than three years ago	—	1.4	8.0	13.2	8.8	4.9	1.1	4.4	3.7	4.6	2.5	3.2
Never measured	72.3	49.3	36.8	20.8	29.0	46.5	76.9	71.4	50.6	44.3	44.3	61.6
Don't know	13.6	10.6	8.1	11.2	11.4	11.1	7.0	7.3	0.7	6.1	10.4	6.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high cholesterol (d)</b>	<b>0.9</b>	<b>11.3</b>	<b>18.3</b>	<b>27.2</b>	<b>19.4</b>	<b>13.1</b>	<b>1.1</b>	<b>1.3</b>	<b>10.3</b>	<b>12.3</b>	<b>25.9</b>	<b>7.6</b>
<b>Treatment to lower blood fat (e)</b>	<b>0.9</b>	<b>0.7</b>	<b>2.7</b>	<b>1.7</b>	<b>6.2</b>	<b>1.9</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>1.3</b>	<b>6.7</b>	<b>1.0</b>
<b>Number of cases</b>	<b>92</b>	<b>113</b>	<b>111</b>	<b>90</b>	<b>77</b>	<b>483</b>	<b>86</b>	<b>120</b>	<b>116</b>	<b>89</b>	<b>69</b>	<b>480</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q10. When did you last have your blood cholesterol measured?

(d) Q11. Have you ever been told that you have high cholesterol?

(e) Q13. Are you having treatment to lower your blood fat?

Table 6. HDL cholesterol and plasma triglycerides

All ages	Men					Women							
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Per cent)												
	HDL cholesterol (mmol/L) (a) (b)												
	Less than 0.50	—	1.6	—	—	—	0.4	—	—	—	—	—	—
8.6	0.50-0.99	22.2	27.3	25.1	19.9	26.2	24.2	12.1	6.3	9.1	6.5	10.6	9.0
31.1	1.00-1.49	55.3	55.5	63.5	61.9	55.7	58.0	54.1	46.9	51.3	41.6	47.3	49.0
34.5	1.50-1.99	18.3	10.9	11.4	14.5	15.4	14.1	30.2	39.8	31.8	37.8	30.9	34.2
16.5	2.00-2.49	2.2	3.9	—	3.7	1.3	2.3	1.8	4.2	6.1	9.2	9.3	5.2
6.0	2.50 or more	2.2	—	—	—	1.5	0.8	—	0.8	1.6	2.2	2.0	1.1
2.1	Not stated	—	0.8	—	—	—	0.2	1.8	2.1	—	2.7	—	1.4
1.1	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
100.0		(mmol/L)											
	Mean	1.25	1.18	1.17	1.24	1.20	1.21	1.35	1.44	1.44	1.50	1.46	1.43
5.39	10th centile	0.90	0.81	0.83	0.88	0.82	0.85	0.96	1.02	1.00	1.00	0.99	1.00
4.08	Median	1.16	1.15	1.16	1.20	1.10	1.16	1.33	1.45	1.40	1.50	1.43	1.40
5.43	90th centile	1.66	1.70	1.50	1.64	1.60	1.60	1.75	1.87	1.90	2.00	2.00	1.88
6.86	Standard error of mean	0.05	0.04	0.02	0.03	0.04	0.02	0.06	0.04	0.03	0.04	0.04	0.02
0.06		(Per cent)											
	Plasma triglyceride (mmol/L) (b)												
40.2	Less than 0.50	4.8	3.9	—	—	—	2.3	10.3	5.9	1.6	2.7	—	5.1
18.5	0.50-0.99	45.3	38.3	32.8	32.3	25.4	36.7	65.5	61.1	52.6	36.7	30.7	53.5
	1.00-1.49	25.8	28.2	22.5	32.4	38.0	28.1	12.1	22.2	26.0	38.9	32.7	23.8
388	1.50-1.99	15.2	15.6	18.5	16.7	19.9	16.7	3.6	3.3	14.8	8.1	21.4	8.6
	2.00-2.49	3.9	7.0	7.8	6.7	5.5	6.1	4.9	0.8	3.3	3.2	6.6	3.5
	2.50-2.99	1.9	0.8	6.7	7.6	5.8	3.9	—	3.8	—	2.7	6.6	2.2
5.2	3.00-4.99	3.1	4.7	9.6	4.4	2.5	5.0	1.8	0.8	1.6	4.9	2.0	1.9
5.3	5.00 or more	—	0.8	2.0	—	2.8	0.9	—	—	—	—	—	—
9.5	Not stated	—	0.8	—	—	—	0.2	1.8	2.1	—	2.7	—	1.4
9.2	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
3.2		(mmol/L)											
61.6	Mean	1.14	1.43	1.70	1.44	1.51	1.42	0.92	0.96	1.09	1.28	1.42	1.07
6.1	10th centile	0.50	0.60	0.70	0.69	0.78	0.60	0.43	0.52	0.55	0.70	0.80	0.53
100.0	Median	1.00	1.10	1.35	1.22	1.25	1.18	0.71	0.80	0.96	1.05	1.22	0.95
	90th centile	1.99	2.23	3.00	2.60	2.50	2.49	1.90	1.42	1.70	2.05	2.40	1.80
7.6	Standard error of mean	0.09	0.20	0.12	0.07	0.09	0.06	0.12	0.06	0.04	0.07	0.07	0.03
1.0	Number of cases	85	102	103	85	73	448	51	91	103	79	64	388
480		(Per cent)											
	Told of high triglycerides (c)	0.9	5.6	7.3	5.0	8.8	5.0	—	0.6	1.4	2.1	4.3	1.3
	Number of cases	92	113	111	90	77	483	86	120	116	89	69	480

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q11. Have you ever been told that you have high triglycerides?

Table 7. Smoking behaviour and alcohol consumption

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
(Per cent)												
<b>Smoking behaviour</b>												
<b>Smoking status (a)</b>												
Cigarette smoker (b) (c)	29.3	31.0	30.7	19.3	22.3	27.8	28.1	21.9	19.9	27.3	17.3	23.4
Cigar and/or pipe only	—	2.1	0.9	2.4	1.5	1.2	—	—	—	—	—	—
Ex-smokers	16.5	27.5	32.5	43.0	47.8	30.1	13.9	21.9	23.3	17.1	20.4	19.1
Never smoked regularly	54.2	39.4	35.9	35.2	28.4	40.8	58.0	56.2	56.9	55.6	62.3	57.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>92</b>	<b>113</b>	<b>111</b>	<b>90</b>	<b>77</b>	<b>483</b>	<b>86</b>	<b>120</b>	<b>116</b>	<b>89</b>	<b>69</b>	<b>480</b>
(Per cent)												
<b>Manufactured cigarettes a day (d)</b>												
1-10	28.3	37.1	20.7	26.1	11.8	27.0	43.1	31.9	42.5	17.6	7.3	32.7
11-20	53.7	31.4	38.2	51.7	43.4	43.3	43.5	59.5	31.6	53.4	71.9	49.7
21-40	18.0	31.4	41.1	22.3	38.2	29.0	13.4	8.7	22.3	24.4	20.8	16.2
41 or more	—	—	—	—	6.6	0.7	—	—	3.6	4.6	—	1.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(Cigarettes)												
Mean	17	17	21	17	24	19	15	16	16	18	17	16
Standard error of mean	1.6	2.0	1.9	2.0	2.8	0.9	1.9	1.9	2.6	2.2	1.3	1.0
<b>Number of cases</b>	<b>29</b>	<b>28</b>	<b>29</b>	<b>15</b>	<b>17</b>	<b>118</b>	<b>23</b>	<b>24</b>	<b>23</b>	<b>24</b>	<b>12</b>	<b>106</b>
(Per cent)												
<b>Alcohol consumption</b>												
<b>Usual frequency (e)</b>												
I don't drink alcohol	12.1	8.5	8.0	15.2	20.2	11.6	23.5	24.1	27.1	29.4	39.3	27.1
Less than once a week	37.5	27.5	23.8	19.9	22.6	27.8	38.2	40.0	34.6	47.1	26.1	37.7
On 1 or 2 days a week	28.0	27.5	24.4	20.8	16.7	24.8	31.4	25.1	15.6	11.0	13.7	21.6
On 3 or 4 days a week	15.3	19.0	9.8	13.0	12.0	14.4	5.9	6.7	8.7	2.3	5.6	6.1
On 5 or 6 days a week	5.3	8.5	15.4	8.5	9.1	9.1	—	1.9	4.4	2.5	4.3	2.3
Every day	1.8	9.2	18.7	22.6	19.4	12.2	1.1	2.2	9.6	7.7	11.0	5.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Usual consumption (f)</b>												
I donot drink alcohol	12.1	8.5	8.0	15.2	20.2	11.6	23.5	24.1	27.1	29.4	39.3	27.1
1 or 2 drinks	30.6	33.1	37.3	38.4	32.3	34.0	33.3	58.4	51.7	54.2	52.6	49.0
3 or 4 drinks	25.0	31.7	26.1	29.4	28.4	28.0	31.5	14.9	16.7	13.1	6.9	18.5
5 to 8 drinks	22.2	21.1	26.9	13.5	12.6	20.6	11.7	2.5	4.4	2.1	1.3	5.2
9 to 12 drinks	8.3	4.9	0.9	1.7	4.1	4.4	—	—	—	—	—	—
13 to 20 drinks	1.8	—	—	1.7	2.3	1.0	—	—	—	—	—	—
More than 20 drinks	—	0.7	0.9	—	—	0.4	—	—	—	—	—	—
Not stated	—	—	—	—	—	—	—	—	—	1.3	—	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Alcohol index</b>												
Intermediate risk or more (g)	7.4	8.5	15.1	6.1	14.1	9.9	1.1	—	5.4	2.1	3.1	2.1
<b>Number of cases</b>	<b>92</b>	<b>113</b>	<b>111</b>	<b>90</b>	<b>77</b>	<b>483</b>	<b>86</b>	<b>120</b>	<b>116</b>	<b>89</b>	<b>69</b>	<b>480</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe.

(c) Includes persons who smoke hand-rolled cigarettes.

(d) Current smokers of manufactured cigarettes.

(e) Q33. How often do you usually drink alcohol?

(f) Q34. On a day when you drink alcohol, how many drinks do you usually have?

(g) Men: average daily consumption of at least 5 drinks or occasional excess.

Women: average daily consumption of at least 4 drinks or at least 9 drinks in any one day.

} See Appendix F.



Table 8. Height, weight and weight for height

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Height (cm) (b)</b>	(Per cent)											
Under 150	—	—	—	—	—	—	2.4	2.4	3.5	4.9	6.9	3.5
150-159	—	—	1.9	3.1	4.1	1.3	29.3	33.5	20.7	31.6	44.6	30.9
160-169	22.3	16.2	19.9	29.7	29.6	22.1	50.0	45.1	66.8	54.4	46.6	52.3
170-179	51.4	48.6	50.1	45.2	51.9	49.6	18.2	19.0	7.9	9.1	1.9	13.1
180-189	24.5	32.4	27.2	20.3	14.4	25.4	—	—	1.2	—	—	0.2
190+	0.9	2.8	0.9	1.7	—	1.4	—	—	—	—	—	—
Not stated	0.9	—	—	—	—	0.2	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	175.4	176.9	174.5	173.2	172.5	175.0	162.8	162.6	162.4	161.1	158.9	162.0
10th centile	166.0	168.0	166.0	162.0	162.0	166.0	155.0	153.0	156.0	153.0	151.0	153.0
Median	175.0	177.0	175.0	174.0	173.0	175.0	162.0	164.0	162.5	160.5	159.5	162.0
90th centile	185.0	185.0	183.0	184.0	182.0	184.0	173.0	171.0	169.0	169.0	167.0	171.0
Standard error of mean	0.87	0.68	0.64	0.77	0.72	0.33	0.90	0.69	0.51	0.56	0.64	0.30
<b>Weight (kg) (c)</b>	(Per cent)											
Less than 50	0.9	—	—	1.5	—	0.5	7.3	8.3	2.2	3.6	6.9	6.0
50-59	7.4	1.4	1.7	2.6	4.1	3.6	37.8	33.3	27.4	30.6	22.7	31.7
60-69	30.1	24.6	11.9	11.4	17.9	20.8	34.2	36.0	40.6	34.5	41.5	36.9
70-79	33.1	30.3	35.3	35.1	41.3	34.0	15.8	13.3	16.7	17.1	23.3	16.4
80-89	20.5	26.1	25.1	32.0	22.9	24.9	2.4	4.5	8.0	9.1	5.7	5.4
90-99	6.2	12.7	19.8	13.8	10.9	12.4	2.4	3.8	2.9	3.1	—	2.7
100-109	1.8	3.5	5.3	2.6	1.5	3.0	—	0.7	1.4	1.0	—	0.6
110 or more	—	1.4	0.9	0.9	1.5	0.9	—	—	0.7	1.0	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(kg)											
Mean	73.9	79.3	81.6	80.1	77.7	78.2	62.3	63.2	66.6	66.8	64.4	64.3
10th centile	60.6	64.0	67.8	67.3	64.6	64.0	50.3	50.9	53.7	52.6	52.0	50.9
Median	72.7	78.9	80.5	79.8	75.3	78.0	61.6	62.2	63.7	64.5	63.5	62.9
90th centile	88.7	95.6	97.5	92.7	95.3	94.7	76.4	78.0	82.8	84.3	75.5	78.8
Standard error of mean	1.41	1.20	1.09	1.05	1.07	0.54	1.48	1.18	1.06	1.17	1.08	0.54
<b>Weight for height (d)</b>	(Per cent)											
Underweight	7.0	4.9	0.9	4.8	2.6	4.4	23.1	17.2	4.8	8.3	4.4	13.5
Acceptable weight	63.6	46.5	33.3	31.7	42.2	45.8	50.0	57.8	58.2	51.5	42.2	53.0
Overweight	24.9	40.8	49.0	48.9	48.4	40.3	19.6	16.7	22.7	22.8	45.2	23.0
Obese	3.5	7.7	16.8	14.5	6.7	9.4	7.3	8.3	14.3	17.3	8.2	10.5
Not stated	0.9	—	—	—	—	0.2	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(kg/m <sup>2</sup> )											
Mean	23.7	25.0	26.4	26.4	25.8	25.2	23.1	23.5	24.9	25.4	25.1	24.1
10th centile	20.2	20.8	22.4	20.7	22.1	20.8	19.1	19.4	20.4	20.4	20.4	19.6
Median	23.4	25.1	26.2	26.1	25.7	25.3	22.3	22.7	23.6	23.7	25.1	23.5
90th centile	28.2	29.5	31.3	30.7	29.8	29.8	29.1	29.0	31.1	33.5	29.3	30.1
Standard error of mean	0.39	0.33	0.32	0.34	0.33	0.16	0.56	0.42	0.39	0.48	0.41	0.21
<b>Number of cases</b>	<b>92</b>	<b>113</b>	<b>111</b>	<b>90</b>	<b>77</b>	<b>483</b>	<b>82</b>	<b>108</b>	<b>114</b>	<b>88</b>	<b>68</b>	<b>460</b>

(a) Excludes pregnant women.

(b) Height in stockings feet.

(c) Weight in stockinged feet and light street clothing.

(d) Based on body mass index (Wt-1/Ht<sup>2</sup>). See Appendix E.

Table 9. Waist circumference, hip circumference and waist to hip ratio

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Waist circumference (cm) (b)</b>							<i>(Per cent)</i>					
Less than 60	—	—	—	—	—	—	1.2	1.4	—	—	—	0.7
60-69	4.8	—	0.9	—	—	1.5	48.8	37.1	30.0	19.9	9.5	33.1
70-79	35.8	21.1	7.2	9.0	7.9	18.9	35.4	44.8	38.3	43.3	42.2	40.4
80-89	39.3	43.0	32.7	27.9	27.3	35.9	9.7	13.1	25.0	18.1	32.0	17.6
90-99	14.9	28.2	37.9	36.0	38.4	28.9	3.6	2.1	4.5	10.4	14.5	5.7
100-109	4.4	6.3	17.8	23.7	22.3	12.5	1.2	1.4	0.7	5.2	1.9	1.8
110 or more	—	1.4	3.5	3.5	4.1	2.1	—	—	1.4	2.1	—	0.6
Not stated	0.9	—	—	—	—	0.2	—	—	—	1.0	—	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(cm)</i>					
Mean	82.0	87.1	92.1	93.0	92.7	88.3	71.2	72.6	76.5	78.5	79.8	74.7
10th centile	72.0	75.5	81.0	80.5	80.0	75.0	62.0	64.0	66.0	67.0	70.0	64.0
Median	81.5	87.0	92.0	93.8	91.0	89.0	69.5	70.8	74.0	75.0	78.5	73.5
90th centile	95.0	99.0	105.0	104.5	104.5	101.5	82.5	86.0	89.0	93.5	91.0	88.0
Standard error of mean	1.05	0.90	0.88	0.90	0.90	0.46	1.18	0.85	0.84	1.06	0.95	0.46
<b>Hip circumference (cm) (b)</b>							<i>(Per cent)</i>					
less than 85	0.9	—	0.9	—	—	0.4	—	0.7	—	—	1.3	0.3
85-89	6.5	2.8	0.9	3.3	—	3.2	14.6	8.6	3.3	7.0	4.4	8.4
90-94	19.6	23.2	5.5	4.0	10.6	14.3	19.5	17.6	13.5	11.4	10.7	15.6
95-99	39.2	19.0	40.6	26.7	34.9	31.9	26.9	28.8	29.3	32.1	20.1	27.8
100-104	19.6	34.5	20.7	26.1	26.7	25.5	17.1	18.8	24.0	20.7	36.4	21.8
105-109	10.6	14.8	23.4	29.9	18.8	18.1	12.2	14.8	12.2	11.4	16.3	13.3
110-114	1.8	4.2	6.2	7.4	6.2	4.6	7.3	4.8	7.1	3.1	3.8	5.6
115-119	0.9	0.7	0.9	1.7	—	0.9	—	3.1	4.2	6.7	3.8	3.1
120 or more	—	0.7	0.9	0.9	2.9	0.8	2.4	2.9	6.2	6.5	3.1	4.0
Not stated	0.9	—	—	—	—	0.2	—	—	—	1.0	—	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(cm)</i>					
Mean	97.5	99.6	101.3	102.2	101.2	100.0	98.1	99.4	102.0	101.6	101.3	100.1
10th centile	90.5	91.5	95.0	95.0	93.0	92.0	89.0	89.5	92.0	90.0	92.0	89.5
Median	97.0	100.0	100.5	103.0	100.0	100.0	97.0	98.5	100.0	99.5	101.0	99.5
90th centile	105.0	107.5	109.0	110.0	109.0	108.0	108.5	110.0	115.5	117.0	112.5	112.0
Standard error of mean	0.73	0.62	0.56	0.58	0.63	0.29	1.13	0.87	0.81	0.93	0.86	0.42
<b>Waist to hip ratio</b>							<i>(Per cent)</i>					
Less than 0.699	—	—	—	—	—	—	31.7	26.9	18.3	10.9	1.3	21.1
0.700-0.799	23.6	6.3	1.8	0.9	5.0	9.1	61.0	66.9	66.1	64.5	61.0	64.1
0.800-0.899	58.6	62.7	40.5	43.6	36.9	51.3	4.9	6.2	15.6	18.2	37.8	13.3
0.900-0.999	16.2	31.0	52.3	48.1	47.2	35.8	—	—	—	4.4	—	0.6
1.000 or more	0.9	—	5.3	6.6	9.7	3.4	—	—	—	1.0	—	0.1
Not stated	0.9	—	—	0.9	1.2	0.5	2.4	—	—	1.0	—	0.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(Waist/Hip)</i>					
Mean	0.839	0.873	0.907	0.909	0.915	0.881	0.724	0.730	0.748	0.771	0.787	0.745
10th centile	0.779	0.807	0.823	0.830	0.844	0.800	0.667	0.676	0.684	0.699	0.727	0.682
Median	0.825	0.868	0.909	0.912	0.918	0.888	0.722	0.725	0.742	0.762	0.779	0.744
90th centile	0.911	0.946	0.975	0.977	0.986	0.965	0.790	0.780	0.822	0.866	0.850	0.809
Standard error of mean	0.006	0.005	0.005	0.005	0.006	0.003	0.006	0.004	0.004	0.006	0.005	0.003
<b>Number of cases</b>	<b>92</b>	<b>113</b>	<b>111</b>	<b>90</b>	<b>77</b>	<b>483</b>	<b>82</b>	<b>108</b>	<b>114</b>	<b>88</b>	<b>68</b>	<b>460</b>

(a) Excludes pregnant women.

(b) The average of two measurements.

Table 10. Dietary behaviour and exercise during leisure time

Ages	Men						Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Per cent)												
0.7	<b>Eat fat on meat (a)</b>												
33.1	Usually	18.9	14.2	19.8	19.6	17.6	17.9	3.7	6.5	7.8	6.5	—	5.2
40.4	Sometimes	37.5	38.8	38.2	22.0	23.2	34.1	29.7	32.9	29.2	31.4	25.1	30.1
17.6	Rarely or never	43.6	47.0	42.0	58.5	59.2	48.1	66.6	60.6	63.0	62.1	74.9	64.6
5.7	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
1.8	<b>Add salt to food (b)</b>												
0.6	Rarely or never	52.5	60.4	48.1	44.4	48.4	51.9	61.4	66.1	53.8	54.9	51.5	59.0
0.1	Sometimes	42.0	21.6	29.3	33.2	23.5	30.7	26.3	26.1	27.9	26.2	31.4	27.1
100.0	Almost always or always	5.5	17.9	22.6	22.5	28.2	17.4	12.4	7.8	18.4	19.0	17.1	13.9
	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
74.7	<b>Exercise during leisure time (c)</b>												
64.0	<b>Vigorous exercise (d)</b>												
73.5	Group 1 (e)	15.9	10.4	11.0	12.4	—	11.1	10.0	9.1	4.3	2.3	—	6.3
88.0	Group 2 (f)	42.6	30.6	18.9	7.6	8.8	25.5	41.7	18.3	17.3	5.9	10.2	21.5
0.46	Less vigorous exercise (g)	41.7	35.1	31.6	26.1	22.6	33.4	39.5	27.0	22.5	16.6	19.7	27.1
	Walking	34.9	47.0	52.6	55.6	62.5	48.0	62.9	52.7	57.8	53.6	57.4	57.1
0.3	No exercise of any kind	18.0	27.6	27.6	31.6	31.1	26.0	16.1	29.0	33.9	38.4	40.0	29.3
8.4	<b>Number of cases</b>												
15.6		92	113	111	90	77	483	86	120	116	89	69	480

(a) Q37. How often do you eat the fat on meat?

(b) Q35. Do you add salt to your food after it is cooked?

(c) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.

(d) Exercise which made you breathe harder or puff and pant.

(e) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.

(f) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.

(g) Exercise which did not make you breathe harder or puff and pant.

Note: Respondents in the exercise table may be counted in more than one category.

Table 11. Multiple major risk factors (a)

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Risk factors present (b)</b>												
No risk factors	65.4	57.7	49.4	51.1	51.6	56.4	62.5	71.1	68.4	49.7	43.8	61.9
One factor	26.3	39.4	36.9	38.2	39.6	35.2	34.0	25.7	25.7	39.0	44.5	32.1
Two factors	8.3	2.8	12.8	10.7	8.8	8.2	3.5	3.2	4.4	11.3	11.7	5.7
Three factors	—	—	0.9	—	—	0.2	—	—	1.4	—	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Risk factors present (c)</b>												
No risk factors	66.3	60.6	53.9	51.9	53.7	58.7	63.7	71.1	71.0	50.8	43.8	62.9
One factor	26.3	36.6	36.1	39.9	37.5	34.3	32.8	25.7	23.1	38.0	44.5	31.1
Two factors	7.4	2.8	9.1	8.1	8.8	6.8	3.5	3.2	5.1	11.3	11.7	5.8
Three factors	—	—	0.9	—	—	0.2	—	—	0.7	—	—	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>92</b>	<b>113</b>	<b>111</b>	<b>90</b>	<b>77</b>	<b>483</b>	<b>86</b>	<b>120</b>	<b>116</b>	<b>89</b>	<b>69</b>	<b>480</b>

(a) Risk factors were considered present if participants were smokers, had raised blood pressure or raised plasma cholesterol (whether fasted or not). Prevalence rates of zero, one, any two, or all three risk factors were determined, based on the definitions given below.

(b) Definition 1 (used in previous RFPS reports):

Raised blood pressure: diastolic blood pressure  $\geq 95$  mmHg.

Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.

Smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily (cigar and/or pipe smoking is not included).

(c) Definition 2 (used in the WHO MONICA project):

Hypertension: systolic blood pressure  $\geq 160$  mmHg and/or diastolic blood pressure  $\geq 95$  mmHg and/or on tablets for blood pressure.

Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.

Smoking: regular cigarette, cigar and/or pipe smokers.

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## RISK FACTOR SUMMARY

	Men	Women
	<i>(Per cent)</i>	
<b>Hypertension (a)</b>	14	17
<b>Raised cholesterol</b>		
$\geq 5.5$ mmol/L	59	53
$\geq 6.5$ mmol/L	26	25
<b>Smoking</b>		
Cigarette smokers	29	29
Cigarettes per day	21	17
<b>Multiple major risk factors (b)</b>		
At least one	49	49
Two or three	12	10
<b>Overweight and obesity (c)</b>		
Overweight	40	25
Obese	13	13
<b>Dietary behaviour</b>		
Usually eat fat on meat	22	7
Always add salt (d)	25	17
<b>Exercise during leisure time (e)</b>		
No exercise of any kind	26	28
Vigorous exercise	34	26
Walking	57	65

(a) See Table 4.

(b) See definition 1 in Table 11.

(c) See Table 8 and Appendix E.

(d) Almost always or always add salt to food after it is cooked (see Table 10).

(e) For recreation, sport or health fitness (see Table 10).

## Response analysis

Of the 1,500 persons selected from the electoral rolls, 201 were either no longer living at the address, were outside the study area for the duration of the study, in prison or had died leaving 1,299 potential respondents. Of these, 1,084 actually participated in the survey, giving an overall response rate of 83.4 per cent. Age-group and sex are based on electoral roll information.

The response rate was about the same for men and women (84% and 83% respectively) and highest (89%) in the age-group 30-39 years. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

### Response rates by age and sex

	Sample selected (a)	Ineligible (b)	Potential respondents (c)=(a)-(b)	Respondents (d)	Response rate (e)=(d)/(c)
	(Number)	(Number)	(Number)	(Number)	(Per cent)
Sex					
Male	730	103	627	524	83.6
Female	770	98	672	560	83.3
Age					
20-29	356	101	255	206	80.8
30-39	365	52	313	279	89.1
40-49	308	19	289	236	81.7
50-59	234	17	217	173	79.7
60-69	237	12	225	190	84.4
<b>Total</b>	<b>1,500</b>	<b>201</b>	<b>1,299</b>	<b>1,084</b>	<b>83.4</b>

### Comparison of respondents and non-respondents

	Respondents		Non-respondents	
	(Number)	(Per cent)	(Number)	(Per cent)
Sex				
Male	524	48.3	103	47.9
Female	560	51.7	112	52.1
Age				
20-29	206	19.0	49	22.8
30-39	279	25.7	34	15.8
40-49	236	21.8	53	24.7
50-59	173	16.0	44	20.5
60-69	190	17.5	35	16.3
<b>Total</b>	<b>1,084</b>	<b>100.0</b>	<b>215</b>	<b>100.0</b>

**Table 1. Marital status, living arrangements, country of birth and education level**

	<i>Men</i>						<i>Women</i>					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Marital status</b>												
Never married	56	14	5	5	4	84	58	19	4	2	7	90
Now married	40	98	104	64	73	379	46	107	92	68	63	376
Separated but not divorced	1	6	5	4	2	18	4	11	3	3	—	21
Divorced	—	9	9	7	6	31	1	11	12	9	5	38
Widowed	—	—	1	3	7	11	—	2	3	6	24	35
<b>Living arrangements</b>												
Living with legal spouse	40	97	103	64	73	377	46	105	92	68	61	372
Living with partner (de facto)	10	9	4	2	2	27	10	6	3	—	—	19
Living with other persons	43	13	4	3	5	68	41	28	14	10	10	103
Living alone	4	8	13	14	12	51	12	11	5	10	28	66
<b>Country of birth</b>												
Australia	93	118	90	64	72	437	98	135	99	67	75	474
Other Oceania	1	2	1	1	1	6	1	2	1	—	1	5
United Kingdom	3	4	16	11	7	41	6	6	8	12	13	45
Northern Europe	—	2	11	4	8	25	—	3	4	2	5	14
Southern Europe	—	—	2	2	2	6	1	3	2	4	3	13
Asia	—	1	3	1	1	6	2	—	—	3	1	6
Africa	—	—	1	—	1	2	—	—	—	—	—	—
North & South America	—	—	—	—	—	—	1	1	—	—	1	3
<b>Education level</b>												
Never attended school	—	—	—	—	1	1	—	—	—	—	—	—
Primary school	—	1	5	12	30	48	—	—	4	13	34	51
Some high school	24	33	44	34	30	165	26	41	51	41	33	192
Completed high school	51	47	37	22	19	176	57	68	35	20	20	200
Tertiary institution	22	46	38	15	12	133	26	41	24	14	12	117
<b>Cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>109</b>	<b>150</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>560</b>



Table 2. Employment status, occupation, annual gross income and main source of income

All ages	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
	<b>Employment status (a)</b>											
90	77	109	114	65	22	387	55	48	37	21	3	164
376	8	4	4	2	5	23	22	50	38	17	4	131
21	7	9	3	5	2	26	6	6	1	1	—	14
38	92	122	121	72	29	436	83	104	76	39	7	309
35	<b>Occupation (b) (c)</b>											
	8	13	21	10	6	58	2	5	8	4	—	19
372	11	28	24	8	2	73	19	17	16	6	3	61
19	5	11	13	6	5	40	8	13	3	3	—	27
103	12	18	18	14	5	67	1	4	4	1	—	10
66	15	21	14	12	4	66	23	33	23	12	2	93
	13	6	10	5	2	36	12	15	10	6	—	43
474	7	4	11	5	2	29	1	3	—	1	—	5
5	14	12	6	7	—	39	11	8	11	5	2	37
45	—	—	1	—	1	2	—	—	—	—	—	—
14	85	113	118	67	27	410	77	98	75	38	7	295
13	<b>Annual gross income</b>											
6	—	—	—	—	—	—	10	25	17	14	14	80
—	10	7	4	8	24	53	23	26	25	29	38	141
3	3	1	1	5	10	20	10	22	9	9	20	70
51	1	1	2	—	9	13	6	14	7	9	8	44
192	5	3	2	5	6	21	5	7	8	4	10	34
200	4	1	—	2	6	13	4	4	3	1	3	15
117	9	5	6	3	4	27	5	8	4	2	1	20
	2	11	9	6	5	33	9	5	3	6	—	23
560	11	7	7	6	6	37	8	8	4	2	—	22
	15	6	7	14	6	48	6	5	3	2	—	16
	21	38	31	12	5	107	15	13	13	7	2	50
	13	33	28	17	5	96	7	12	8	2	2	31
	3	14	26	3	3	49	1	1	3	—	—	5
	—	—	1	2	3	6	—	—	7	1	1	9
	<b>Main source of income</b>											
	77	101	103	54	17	352	71	87	57	30	6	251
	8	11	13	12	9	53	2	10	19	6	—	37
	11	15	4	11	38	79	25	25	10	27	58	145
	—	—	1	3	15	19	—	—	—	3	7	10
	1	—	1	3	13	18	—	2	8	6	15	31
	—	—	2	—	—	2	—	1	3	3	—	7
	—	—	—	—	—	—	10	24	16	13	13	76
	—	—	—	—	—	—	1	1	1	—	—	3
	97	127	124	83	92	523	109	150	114	88	99	560

(a) Employed full-time, part-time or not working.

(b) Employed full-time or part-time.

(c) Classified using the Australian Standard Classification of Occupations (see Appendix G).

(d) Own business or share in partnership.

(e) Any government pension or cash benefit.

Note: Employment status, annual gross income and main source of income relate to respondent only (not partner).

**Table 3. Systolic and diastolic blood pressure**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
(Per cent)												
<b>Systolic blood pressure (mmHg) (a)</b>												
Less than 100	2.9	0.7	0.9	—	1.1	1.3	5.5	7.9	1.6	—	—	3.8
100-109	9.3	8.2	6.1	3.7	1.1	6.5	32.1	24.5	7.0	6.9	1.1	17.2
110-119	21.3	29.9	15.6	9.8	8.6	19.0	33.9	27.0	21.4	17.2	10.6	24.0
120-129	33.5	29.2	32.9	18.9	11.9	27.3	22.9	25.7	36.6	17.9	14.0	24.3
130-139	24.4	22.7	26.4	21.8	24.0	23.9	4.6	10.5	19.4	21.2	14.6	12.9
140-149	6.8	7.9	9.1	11.9	22.8	10.4	0.9	0.6	7.8	10.0	19.4	6.1
150-159	1.9	0.7	5.0	22.0	17.4	7.2	—	0.6	3.7	12.0	22.7	5.8
160-169	—	0.7	4.1	7.2	6.6	2.9	—	1.3	2.5	6.7	9.9	3.2
170 or more	—	—	—	4.8	6.5	1.6	—	1.9	—	8.1	7.7	2.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmHg)												
Mean	124	124	129	140	141	130	113	118	126	137	143	125
10th centile	106	110	113	117	118	111	101	100	110	114	118	104
Median	124	124	128	138	142	128	113	116	126	135	143	123
90th centile	136	139	148	161	161	152	125	135	144	165	164	152
Standard error of mean	1.5	1.1	1.2	2.0	1.7	0.7	1.1	1.2	1.3	2.3	1.7	0.8
(Per cent)												
<b>Diastolic blood pressure (mmHg) (a)</b>												
Less than 60	10.6	2.9	—	—	—	3.5	14.7	5.4	0.8	—	—	5.4
60-64	8.3	5.7	2.6	1.2	3.2	4.8	18.3	13.0	0.8	3.3	2.2	9.1
65-69	21.9	11.3	5.6	5.0	11.0	12.0	20.2	17.2	8.2	3.6	5.5	12.6
70-74	23.4	18.2	6.5	4.7	13.1	14.6	18.3	20.6	21.4	12.4	18.4	18.6
75-79	11.6	17.1	18.2	8.8	6.6	13.3	11.9	14.3	19.8	11.7	15.3	14.5
80-84	15.5	22.8	26.2	30.8	29.1	23.6	14.7	20.0	21.4	30.1	19.8	20.4
85-89	3.9	12.5	11.0	13.3	10.9	9.8	1.8	2.5	15.7	15.0	15.7	8.6
90-94	4.8	7.5	17.1	12.3	12.9	10.1	—	1.9	7.8	13.8	9.6	5.4
95-99	—	0.7	8.2	13.3	5.4	4.5	—	3.2	2.5	3.3	7.3	2.8
100-104	—	—	1.7	6.0	4.3	1.8	—	1.3	1.6	5.5	1.1	1.6
105-109	—	0.7	0.6	—	2.2	0.6	—	—	—	1.2	4.0	0.7
110 or more	—	0.7	2.2	4.7	1.1	1.5	—	0.6	—	—	1.1	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmHg)												
Mean	72	78	84	87	83	79	69	74	79	83	82	76
10th centile	59	66	71	74	68	66	56	62	70	71	70	62
Median	72	78	84	84	82	81	68	74	79	84	82	76
90th centile	84	89	96	100	95	94	82	84	90	97	96	90
Standard error of mean	1.3	0.9	0.8	1.1	1.0	0.5	1.0	0.8	0.8	1.0	1.0	0.5
<b>Number of cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>109</b>	<b>150</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>560</b>

(a) The average of two readings taken 5 minutes apart.

Table 4. Blood pressure: related statistics

	Men					Women							
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Per cent)												
<b>When blood pressure last measured (a)</b>													
3.8	In the last three months	27.3	30.6	32.5	35.9	59.9	34.7	44.0	36.9	37.0	55.2	56.5	44.2
17.2	In the last six months	12.2	12.2	18.4	18.0	8.6	13.8	20.2	21.0	26.3	13.8	16.1	20.1
24.0	In the last year	19.3	30.8	22.1	19.6	17.4	22.6	17.4	25.7	22.6	18.8	15.0	20.4
24.3	In the last three years	20.9	12.2	21.0	12.1	10.9	16.0	11.0	10.8	7.4	9.8	7.0	9.5
12.9	More than three years ago	6.8	11.4	4.5	10.8	2.2	7.5	3.7	5.1	4.9	2.4	4.3	4.2
6.1	Never measured	5.8	1.4	—	1.2	—	2.1	2.8	—	—	—	—	0.7
5.8	Don't know	7.7	1.4	1.5	2.3	1.1	3.2	0.9	0.6	1.6	—	1.1	0.9
3.2	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
2.8	Told of high blood pressure (b)	9.7	10.6	18.6	30.0	43.4	19.1	9.2	17.5	23.0	39.7	53.9	24.8
100.0	On blood pressure tablets (c)	1.9	—	2.4	14.2	27.1	6.6	0.9	1.9	8.2	19.8	43.6	11.4
<b>Hypertensives</b>													
125	Controlled (d)	1.9	—	—	5.9	18.4	3.8	0.9	0.6	7.4	14.3	29.7	8.1
104	Treated, uncontrolled (e)	—	—	2.4	8.3	8.8	2.9	—	1.3	0.8	5.5	13.9	3.2
123	Untreated (f)	—	2.1	11.3	20.5	13.0	7.5	—	4.5	4.1	12.7	9.2	5.1
152	Total hypertensives	1.9	2.1	13.6	34.7	40.1	14.1	0.9	6.4	12.4	32.5	52.8	16.5
0.8	Normotensives (g)	98.1	97.9	86.4	65.3	59.9	85.9	99.1	93.6	87.6	67.5	47.2	83.5
	<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	<b>Number of cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>109</b>	<b>150</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>560</b>

(a) Q9. When did you last have your blood pressure measured?  
 (b) Q11. Have you ever been told that you have high blood pressure?  
 (c) Q12. Are you on tablets for blood pressure?  
 (d) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.  
 (e) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.  
 (f) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.  
 (g) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.  
 Note: Classifications of hypertension are those used in the WHO MONICA Project.

**Table 5. Plasma cholesterol and related statistics**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Plasma cholesterol (mmol/L) (a) (b)</b>												
Less than 3.00	—	—	—	—	1.2	0.2	2.2	1.0	—	—	—	0.8
3.00-3.99	3.3	4.2	1.0	1.6	—	2.4	9.5	8.7	3.0	—	0.8	5.4
4.00-4.99	40.9	23.6	9.3	13.3	11.3	22.1	43.8	23.4	17.4	11.9	7.6	23.5
5.00-5.99	29.9	39.4	33.5	32.3	41.4	34.9	21.2	40.8	40.8	27.6	19.7	30.8
6.00-6.99	15.5	22.2	33.9	35.8	24.9	25.2	11.0	21.3	23.4	27.7	37.6	22.3
7.00-7.99	10.3	6.5	14.4	10.8	16.3	11.0	4.4	2.9	12.4	21.2	21.5	10.5
8.00-8.99	—	4.1	7.9	5.1	3.7	3.9	6.6	1.0	2.0	10.2	11.5	5.5
9.00 or more	—	—	—	1.3	1.3	0.4	1.5	1.0	1.0	1.4	1.3	1.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmol/L)											
Mean	5.37	5.60	6.23	6.12	6.03	5.80	5.23	5.33	5.82	6.40	6.61	5.74
10th centile	4.20	4.40	4.93	4.79	4.75	4.40	3.82	4.04	4.47	4.86	5.30	4.22
Median	5.30	5.41	6.10	6.15	5.87	5.79	4.88	5.30	5.67	6.42	6.56	5.80
90th centile	7.00	7.10	7.60	7.45	7.30	7.29	7.30	6.47	7.30	8.06	8.10	7.51
Standard error of mean	0.13	0.10	0.10	0.12	0.11	0.05	0.28	0.11	0.10	0.12	0.10	0.06
	(Per cent)											
Cholesterol ≥ 5.5 mmol/L	41.4	47.5	79.0	73.1	71.3	59.1	31.4	39.8	59.2	76.2	86.7	53.4
Cholesterol ≥ 6.5 mmol/L	15.9	17.8	40.3	32.9	32.4	25.9	12.4	9.7	25.4	45.8	54.6	25.2
<b>Number of cases</b>	<b>86</b>	<b>113</b>	<b>107</b>	<b>75</b>	<b>81</b>	<b>462</b>	<b>49</b>	<b>96</b>	<b>96</b>	<b>78</b>	<b>85</b>	<b>404</b>
	(Per cent)											
<b>When blood cholesterol last measured (c)</b>												
In the last three months	4.8	6.7	9.4	7.2	12.1	7.5	2.8	3.8	4.1	13.1	8.1	5.6
In the last six months	4.4	3.6	11.6	7.3	11.9	7.0	3.7	3.2	10.3	8.1	10.7	6.5
In the last year	3.9	17.0	17.0	14.5	19.6	13.5	4.6	7.3	15.2	14.1	12.1	9.8
In the last three years	6.8	12.9	13.3	19.5	7.6	11.6	6.4	12.1	12.3	12.9	14.3	11.1
More than three years ago	—	—	5.9	5.9	7.6	3.0	0.9	3.5	4.9	8.4	5.5	4.1
Never measured	69.4	54.9	33.2	33.8	38.1	49.1	75.2	65.3	53.1	41.3	47.9	59.5
Don't know	10.6	5.0	9.6	11.9	3.2	8.2	6.4	4.8	—	2.1	1.4	3.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high cholesterol (d)</b>	<b>1.9</b>	<b>12.1</b>	<b>26.2</b>	<b>22.7</b>	<b>16.3</b>	<b>14.3</b>	<b>5.5</b>	<b>5.1</b>	<b>11.1</b>	<b>22.7</b>	<b>28.3</b>	<b>12.2</b>
<b>Treatment to lower blood fat (e)</b>	<b>—</b>	<b>—</b>	<b>2.4</b>	<b>8.5</b>	<b>4.3</b>	<b>2.3</b>	<b>0.9</b>	<b>—</b>	<b>0.8</b>	<b>5.5</b>	<b>4.0</b>	<b>1.8</b>
<b>Number of cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>109</b>	<b>150</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>560</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q10. When did you last have your blood cholesterol measured?

(d) Q11. Have you ever been told that you have high cholesterol?

(e) Q13. Are you having treatment to lower your blood fat?

Table 6. HDL cholesterol and plasma triglycerides

All ages	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
	<b>HDL cholesterol (mmol/L) (a) (b)</b>											
0.8	Less than 0.50											
5.4	15.4	24.7	21.4	15.8	27.3	20.6	6.4	3.9	6.0	1.4	10.0	5.4
23.5	65.4	58.2	64.6	64.9	53.1	61.7	40.7	51.5	43.4	50.9	41.0	45.5
30.8	17.1	15.5	12.0	16.4	15.9	15.4	38.6	39.8	40.0	36.9	30.4	37.8
22.3	1.1	0.8	2.1	—	2.4	1.2	12.1	4.8	8.3	9.5	11.5	9.0
10.5	—	0.8	—	2.8	—	0.6	—	—	1.3	1.4	7.1	1.4
5.5	1.1	—	—	—	1.2	0.4	2.1	—	1.0	—	—	0.8
1.2	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
100.0	(mmol/L)											
	1.24	1.23	1.22	1.26	1.20	1.23	1.53	1.44	1.53	1.51	1.56	1.50
5.74	0.92	0.85	0.90	0.90	0.81	0.90	1.02	1.07	1.00	1.10	1.00	1.05
4.22	1.20	1.20	1.20	1.20	1.14	1.20	1.50	1.40	1.44	1.45	1.50	1.46
5.80	1.54	1.60	1.65	1.70	1.61	1.60	2.10	1.81	1.97	2.00	2.39	2.00
7.51	0.03	0.03	0.03	0.04	0.03	0.01	0.08	0.03	0.04	0.03	0.04	0.02
0.06	(Per cent)											
	<b>Plasma triglyceride (mmol/L) (b)</b>											
53.4	Less than 0.50											
25.2	3.3	1.6	3.1	1.6	2.4	2.4	8.6	6.8	3.0	—	—	4.5
	56.9	37.8	21.6	24.0	19.6	35.2	55.0	58.2	52.7	33.0	27.0	48.2
404	24.1	36.2	24.4	41.2	27.0	30.2	14.3	22.4	27.8	34.6	37.0	25.2
	6.9	14.7	14.1	11.7	19.8	12.8	10.0	4.8	8.6	14.3	21.5	10.7
	4.4	6.5	13.1	9.5	12.4	8.5	6.4	3.9	4.0	11.6	5.3	5.9
	3.3	—	4.8	5.4	7.5	3.6	3.6	1.0	1.0	2.7	5.3	2.5
5.6	—	2.4	13.7	6.6	8.7	5.5	—	2.9	2.0	3.8	2.6	2.1
6.5	—	0.8	5.1	—	1.2	1.4	—	—	—	—	1.3	0.2
9.8	1.1	—	—	—	1.2	0.4	2.1	—	1.0	—	—	0.8
11.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
4.1	(mmol/L)											
59.5	1.06	1.25	1.97	1.54	1.69	1.44	1.01	0.99	1.08	1.39	1.47	1.14
3.4	0.60	0.69	0.76	0.74	0.80	0.68	0.50	0.50	0.60	0.66	0.76	0.50
100.0	0.90	1.10	1.46	1.17	1.49	1.20	0.74	0.80	0.90	1.20	1.26	1.00
	1.90	1.90	3.63	2.84	3.00	2.50	2.03	1.66	1.79	2.32	2.38	2.01
12.2	0.07	0.07	0.13	0.10	0.09	0.05	0.13	0.06	0.06	0.07	0.08	0.03
	<b>Number of cases</b>											
1.8	86	113	107	75	81	462	49	96	96	78	85	404
560	(Per cent)											
	<b>Told of high triglycerides (c)</b>											
	1.9	2.9	11.3	10.5	7.6	6.0	1.8	1.3	3.3	5.7	5.1	3.0
	<b>Number of cases</b>											
	97	127	124	83	92	523	109	150	114	88	99	560

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q11. Have you ever been told that you have high triglycerides?

**Table 7. Smoking behaviour and alcohol consumption**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>(Per cent)</i>												
<b>Smoking behaviour</b>												
<b>Smoking status (a)</b>												
Cigarette smoker (b) (c)	31.9	29.6	27.3	23.9	30.6	29.0	37.7	33.7	22.2	22.9	19.7	29.0
Cigar and/or pipe only	—	—	—	—	1.1	0.1	—	—	—	—	—	—
Ex-smokers	15.1	22.8	28.8	44.1	48.9	28.5	12.8	18.4	21.8	13.1	28.9	18.3
Never smoked regularly	53.0	47.6	44.0	32.1	19.5	42.3	49.5	47.9	56.0	63.9	51.3	52.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>109</b>	<b>150</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>560</b>
<i>(Per cent)</i>												
<b>Manufactured cigarettes a day (d)</b>												
1-10	39.4	13.0	14.4	13.0	16.0	21.8	48.8	33.9	14.8	14.6	29.6	33.4
11-20	33.3	53.2	30.5	18.3	47.9	38.4	34.1	41.6	37.1	44.8	61.2	40.6
21-40	27.3	31.2	55.1	68.7	36.1	39.1	17.1	24.6	48.1	35.4	9.2	25.4
41 or more	—	2.6	—	—	—	0.7	—	—	—	5.2	—	0.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(Cigarettes)</i>												
Mean	17	22	22	24	20	21	14	17	20	24	16	17
Standard error of mean	1.6	1.8	1.7	2.6	1.7	0.8	1.5	1.3	1.6	3.5	1.9	0.8
<b>Number of cases</b>	<b>33</b>	<b>37</b>	<b>32</b>	<b>16</b>	<b>25</b>	<b>143</b>	<b>41</b>	<b>52</b>	<b>26</b>	<b>20</b>	<b>20</b>	<b>159</b>
<i>(Per cent)</i>												
<b>Alcohol consumption</b>												
<b>Usual frequency (e)</b>												
I don't drink alcohol	7.7	8.9	13.2	19.2	23.9	12.9	22.9	18.1	23.5	40.1	41.5	26.9
Less than once a week	36.0	31.8	23.4	25.3	21.8	28.9	47.7	47.0	35.9	29.3	30.4	40.1
On 1 or 2 days a week	34.0	32.7	28.4	24.6	21.6	29.5	21.1	16.9	14.4	14.8	10.7	16.3
On 3 or 4 days a week	16.4	17.8	17.5	9.5	10.9	15.3	6.4	9.2	8.2	8.1	3.6	7.3
On 5 or 6 days a week	3.9	5.7	7.8	13.0	9.8	7.3	1.8	5.1	7.4	—	5.8	4.0
Every day	1.9	3.2	9.7	8.3	12.0	6.1	—	3.8	10.7	7.6	8.0	5.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Usual consumption (f)</b>												
I donot drink alcohol	7.7	8.9	13.2	19.2	23.9	12.9	22.9	18.1	23.5	40.1	41.5	26.9
1 or 2 drinks	30.0	28.8	29.9	30.3	23.2	28.8	39.4	59.6	60.1	39.1	48.3	49.8
3 or 4 drinks	30.8	32.0	28.8	28.1	23.8	29.4	26.6	16.6	13.6	17.4	10.2	17.8
5 to 8 drinks	19.0	22.5	22.5	17.7	21.6	20.7	9.2	5.1	2.0	3.3	—	4.6
9 to 12 drinks	7.7	5.7	3.2	2.3	4.3	5.1	0.9	0.6	—	—	—	0.4
13 to 20 drinks	2.9	0.7	2.4	2.3	2.1	2.0	—	—	—	—	—	—
More than 20 drinks	1.9	1.4	—	—	—	0.9	—	—	—	—	—	—
Not stated	—	—	—	—	1.1	0.1	0.9	—	0.8	—	—	0.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Alcohol index</b>												
Intermediate risk or more (g)	7.7	3.6	6.5	11.7	13.9	7.8	1.8	2.5	3.7	3.1	4.7	3.0
<b>Number of cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>109</b>	<b>150</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>560</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe.

(c) Includes persons who smoke hand-rolled cigarettes.

(d) Current smokers of manufactured cigarettes.

(e) Q33. How often do you usually drink alcohol?

(f) Q34. On a day when you drink alcohol, how many drinks do you usually have?

(g) Men: average daily consumption of at least 5 drinks or occasional excess.

Women: average daily consumption of at least 4 drinks or at least 9 drinks in any one day.

} See Appendix F.

Table 8. Height, weight and weight for height

Ages	Men					Women (a)						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
Height (cm) (b)												
Under 150	—	—	—	—	—	—	1.9	3.3	0.8	1.2	4.7	2.3
150-159	1.0	—	0.6	2.5	3.3	1.2	27.8	31.5	36.7	39.1	47.3	34.9
160-169	16.1	17.5	16.9	25.8	36.0	20.6	58.6	54.0	55.5	56.8	45.4	54.7
170-179	42.2	62.9	59.7	55.2	45.6	53.5	11.6	10.5	6.2	1.9	2.5	7.6
180-189	40.8	17.5	22.7	15.4	14.0	23.9	—	0.7	0.8	0.9	—	0.5
190+	—	2.1	—	1.2	1.1	0.9	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	176.8	174.8	175.1	172.9	171.5	174.7	162.6	161.5	161.0	160.3	158.9	161.2
10th centile	166.0	168.0	168.0	163.0	163.0	165.0	155.0	153.0	154.0	154.0	151.0	153.0
Median	178.0	175.0	175.0	173.0	171.0	174.0	163.0	162.0	161.0	160.0	159.0	161.0
90th centile	185.0	183.0	184.0	182.0	182.0	184.0	171.0	170.0	168.0	166.0	166.0	169.0
Standard error of mean	0.88	0.56	0.49	0.72	0.64	0.30	0.71	0.55	0.54	0.57	0.49	0.26
	(Per cent)											
Weight (kg) (c)												
Less than 50	1.0	—	—	—	1.1	0.4	11.9	4.6	4.1	1.2	2.9	5.7
50-59	5.8	1.4	0.9	3.7	4.4	3.2	38.3	35.5	22.6	25.1	25.0	30.7
60-69	16.4	26.3	11.0	15.7	17.6	17.9	34.2	34.3	44.0	32.7	25.9	34.7
70-79	31.7	35.6	32.7	30.2	32.7	32.8	8.9	14.4	18.1	26.3	30.1	17.6
80-89	30.0	23.5	26.6	24.0	19.4	25.4	3.9	5.9	6.6	7.9	6.6	5.9
90-99	5.8	9.6	20.6	15.7	18.2	12.8	1.9	3.9	3.7	3.6	4.0	3.3
100-109	7.4	2.9	7.4	6.0	6.6	5.9	—	0.7	0.8	2.4	1.1	0.8
110 or more	1.9	0.7	0.9	4.8	—	1.6	1.0	0.7	—	0.9	4.4	1.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(kg)											
Mean	78.4	77.1	82.8	81.6	79.2	79.5	61.1	64.7	65.7	68.4	69.8	65.2
10th centile	63.5	64.0	67.5	65.0	62.0	65.0	49.5	52.5	53.0	52.0	53.0	51.4
Median	78.5	76.0	82.5	80.0	77.0	78.5	59.8	62.0	63.5	66.0	68.0	63.5
90th centile	98.5	93.0	98.0	103.0	96.0	96.5	75.0	82.2	80.0	83.5	85.0	81.5
Standard error of mean	1.56	1.03	0.95	1.50	1.20	0.55	1.30	1.03	1.03	1.37	1.44	0.56
	(Per cent)											
Weight for height (d)												
Underweight	8.7	4.9	0.6	2.3	5.4	4.7	21.6	10.8	9.5	5.7	6.6	12.0
Acceptable weight	52.0	52.0	30.7	31.5	33.9	42.4	57.0	55.3	54.7	38.9	31.8	49.9
Overweight	29.6	39.5	52.8	44.2	40.1	40.4	16.6	22.7	21.8	38.4	34.8	25.0
Obese	9.7	3.6	15.8	22.0	20.5	12.5	4.8	11.2	14.0	16.9	26.8	13.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(kg/m <sup>2</sup> )											
Mean	24.7	24.9	26.6	26.9	26.5	25.7	22.7	24.4	25.0	26.2	27.3	24.7
10th centile	20.6	21.4	22.4	22.1	21.3	21.2	19.0	19.7	20.4	21.0	20.4	19.7
Median	24.4	24.7	26.6	26.3	26.1	25.5	21.7	23.4	24.0	25.4	26.2	23.9
90th centile	29.9	28.6	30.7	33.2	31.5	30.8	27.7	30.3	30.8	32.8	34.3	31.2
Standard error of mean	0.43	0.29	0.27	0.45	0.37	0.16	0.46	0.38	0.40	0.50	0.56	0.21
Number of cases	97	127	124	83	92	523	102	145	114	88	99	548

(a) Excludes pregnant women.  
 (b) Height in stockinged feet.

(c) Weight in stockinged feet and light street clothing.  
 (d) Based on body mass index (Wt-1/Ht<sup>2</sup>). See Appendix E.

**Table 9. Waist circumference, hip circumference and waist to hip ratio**

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
(Per cent)												
<b>Waist circumference (cm) (b)</b>												
Less than 60	—	—	—	—	—	—	4.8	0.7	0.8	—	1.1	1.7
60-69	1.9	—	—	—	1.1	0.6	50.4	38.2	32.9	20.8	19.0	35.1
70-79	28.2	16.7	4.8	6.0	7.8	14.6	30.3	43.4	39.5	39.4	23.0	35.8
80-89	43.1	53.0	42.6	34.1	24.1	41.8	9.7	10.5	16.1	19.6	29.0	15.3
90-99	19.9	23.9	36.4	34.6	39.0	28.9	2.9	6.6	7.8	12.2	17.2	8.2
100-109	5.8	5.0	15.4	18.3	21.5	11.4	1.0	0.7	2.9	6.9	6.2	2.9
110 or more	1.0	1.4	0.9	7.0	6.5	2.7	1.0	—	—	1.2	4.4	1.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(cm)												
Mean	84.8	86.7	91.1	93.0	94.2	89.0	70.9	73.6	74.7	78.9	82.5	75.2
10th centile	74.0	78.0	81.0	81.0	82.0	78.0	62.0	65.0	64.0	68.0	67.0	63.0
Median	85.0	85.5	90.0	91.5	94.8	89.0	68.8	72.0	73.0	76.0	81.0	73.0
90th centile	96.0	97.0	102.0	105.0	108.0	101.5	81.0	85.0	91.0	95.0	99.5	92.0
Standard error of mean	1.13	0.77	0.65	1.06	0.95	0.43	1.16	0.73	0.91	1.17	1.17	0.47
(Per cent)												
<b>Hip circumference (cm) (b)</b>												
less than 85	1.0	0.7	—	1.2	1.1	0.8	6.8	2.6	1.6	—	2.2	3.1
85-89	17.0	4.6	3.2	4.7	7.6	8.0	27.8	14.8	11.1	6.7	8.4	15.4
90-94	19.0	28.8	11.5	13.6	16.6	18.9	24.5	27.7	22.6	17.4	11.0	22.0
95-99	25.7	31.0	31.4	28.8	20.6	28.0	17.6	26.3	28.4	27.5	24.1	24.3
100-104	23.8	19.3	25.7	25.0	21.7	22.9	15.5	9.5	18.9	23.6	23.9	17.0
105-109	9.7	9.6	21.2	13.3	18.3	13.6	4.0	7.9	11.1	13.4	12.8	9.0
110-114	1.0	3.9	6.1	6.1	9.7	4.6	2.9	3.9	0.8	3.3	5.8	3.2
115-119	1.9	0.7	0.9	4.8	3.2	2.0	—	3.9	1.6	2.4	4.0	2.3
120 or more	1.0	1.4	—	2.3	1.1	1.1	1.0	3.3	3.7	5.7	7.7	3.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(cm)												
Mean	97.2	97.8	100.6	100.5	100.3	98.9	94.0	97.1	98.0	100.4	102.0	97.6
10th centile	88.0	91.0	94.0	91.0	90.0	90.0	85.0	87.0	88.0	90.0	89.0	87.0
Median	98.0	96.5	100.0	100.0	100.0	98.5	93.0	95.0	96.8	99.0	100.0	97.0
90th centile	105.0	106.5	108.0	110.0	111.0	108.0	103.0	111.0	109.0	113.0	115.5	109.0
Standard error of mean	0.87	0.62	0.48	0.86	0.72	0.32	0.88	0.76	0.75	0.92	1.11	0.41
(Per cent)												
<b>Waist to hip ratio</b>												
Less than 0.650	—	—	—	—	—	—	17.8	11.2	16.0	9.3	6.6	13.0
0.700-0.799	9.3	1.4	1.7	—	—	3.2	65.7	70.7	63.0	56.1	46.5	62.3
0.800-0.899	59.2	59.0	43.9	31.3	23.0	37.3	11.6	18.1	18.1	28.6	31.8	19.9
0.900-0.999	30.6	35.7	50.2	54.5	67.3	44.1	2.9	—	2.9	6.0	12.9	4.0
1.000 or more	—	1.4	3.2	14.2	9.6	4.4	1.9	—	—	—	1.1	0.7
Not stated	1.0	2.5	0.9	—	—	1.1	—	—	—	—	1.1	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(Waist/Hip)												
Mean	0.872	0.886	0.905	0.925	0.938	0.899	0.754	0.758	0.761	0.784	0.807	0.768
10th centile	0.809	0.834	0.852	0.866	0.872	0.834	0.680	0.699	0.686	0.702	0.732	0.696
Median	0.874	0.885	0.903	0.915	0.939	0.903	0.746	0.757	0.752	0.775	0.793	0.762
90th centile	0.932	0.939	0.958	1.005	0.990	0.958	0.818	0.821	0.851	0.881	0.911	0.850
Standard error of mean	0.006	0.004	0.004	0.005	0.005	0.002	0.008	0.004	0.006	0.006	0.006	0.003
<b>Number of cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>102</b>	<b>145</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>548</b>

(a) Excludes pregnant women.

(b) The average of two measurements.



Table 10. Dietary behaviour and exercise during leisure time

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Eat fat on meat (a)</b>												
Usually	25.5	17.0	21.7	20.2	24.0	21.6	4.6	8.0	8.3	8.3	3.7	6.6
Sometimes	29.9	27.3	39.4	33.7	24.9	31.0	34.0	32.2	34.8	37.9	29.5	33.6
Rarely or never	44.6	55.7	38.9	46.1	51.1	47.4	61.4	59.8	56.9	53.8	66.8	59.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Add salt to food (b)</b>												
Rarely or never	55.6	47.7	44.2	53.7	36.1	48.4	61.4	53.4	61.8	51.8	55.9	57.3
Sometimes	24.5	31.6	26.8	15.4	33.6	26.6	25.7	25.7	27.4	25.2	25.7	26.0
Almost always or always	19.9	20.7	29.0	30.9	30.3	25.0	12.9	20.9	10.8	23.0	18.3	16.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Exercise during leisure time (c)</b>												
<b>Vigorous exercise (d)</b>												
Group 1 (e)	20.7	12.9	7.5	6.3	2.1	11.4	6.4	10.6	3.3	4.6	0.7	5.8
Group 2 (f)	44.4	19.5	21.5	4.8	5.4	22.3	34.9	17.7	18.7	10.8	6.4	19.8
Less vigorous exercise (g)	41.0	38.2	32.7	28.7	15.1	33.4	35.8	31.5	25.7	18.1	19.0	27.8
Walking	52.4	57.7	56.9	58.1	59.9	56.5	69.7	70.1	66.8	58.2	52.1	65.1
No exercise of any kind	12.9	27.2	27.9	34.8	35.9	25.9	22.9	21.8	28.6	32.1	44.9	28.2
<b>Number of cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>109</b>	<b>150</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>560</b>

(a) Q37. How often do you eat the fat on meat?

(b) Q35. Do you add salt to your food after it is cooked?

(c) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.

(d) Exercise which made you breathe harder or puff and pant.

(e) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.

(f) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.

(g) Exercise which did not make you breathe harder or puff and pant.

Note: Respondents in the exercise table may be counted in more than one category.

**Table 11. Multiple major risk factors (a)**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Risk factors present (b)</b>												
No risk factors	61.7	58.2	40.0	41.0	40.1	50.6	53.2	58.0	58.8	43.4	30.3	50.9
One factor	29.6	33.2	44.4	38.9	45.6	37.0	41.3	35.6	32.9	37.0	50.7	38.9
Two factors	8.7	8.6	14.1	17.7	12.0	11.5	5.5	5.7	7.4	18.6	18.3	9.7
Three factors	—	—	1.5	2.3	2.3	0.9	—	0.6	0.8	0.9	0.7	0.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Risk factors present (c)</b>												
No risk factors	61.7	59.7	44.2	46.0	44.4	53.1	53.2	59.3	60.5	44.4	30.3	51.7
One factor	29.6	31.8	45.0	44.7	43.6	37.3	41.3	35.0	31.3	38.4	55.4	39.3
Two factors	8.7	8.6	10.0	8.2	10.9	9.1	5.5	5.7	8.2	16.2	14.2	8.9
Three factors	—	—	0.9	1.2	1.1	0.5	—	—	—	0.9	—	0.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>97</b>	<b>127</b>	<b>124</b>	<b>83</b>	<b>92</b>	<b>523</b>	<b>109</b>	<b>150</b>	<b>114</b>	<b>88</b>	<b>99</b>	<b>560</b>

(a) Risk factors were considered present if participants were smokers, had raised blood pressure or raised plasma cholesterol (whether fasted or not). Prevalence rates of zero, one, any two, or all three risk factors were determined, based on the definitions given below.

(b) Definition 1 (used in previous RFPS reports):

Raised blood pressure: diastolic blood pressure  $\geq 95$  mmHg.

Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.

Smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily (cigar and/or pipe smoking is not included).

(c) Definition 2 (used in the WHO MONICA project):

Hypertension: systolic blood pressure  $\geq 160$  mmHg and/or diastolic blood pressure  $\geq 95$  mmHg and/or tablets for blood pressure.

Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.

Smoking: regular cigarette, cigar and/or pipe smokers.

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## RISK FACTOR SUMMARY

	Men	Women
	<i>(Per cent)</i>	
<b>Hypertension (a)</b>	8	6
<b>Raised cholesterol</b>		
$\geq 5.5$ mmol/L	43	30
$\geq 6.5$ mmol/L	13	11
<b>Smoking</b>		
Cigarette smokers	37	27
Cigarettes per day	23	20
<b>Multiple major risk factors (b)</b>		
At least one	48	33
Two or three	6	4
<b>Overweight and obesity (c)</b>		
Overweight	35	19
Obese	9	7
<b>Dietary behaviour</b>		
Usually eat fat on meat	20	7
Always add salt (d)	28	16
<b>Exercise during leisure time (e)</b>		
No exercise of any kind	25	32
Vigorous exercise	42	31
Walking	42	51

(a) See Table 4.

(b) See definition 1 in Table 11.

(c) See Table 8 and Appendix E.

(d) Almost always or always add salt to food after it is cooked (see Table 10).

(e) For recreation, sport or health fitness (see Table 10).

## Response analysis

Darwin conducted a prevalence survey in 1985 which included Palmerston in the catchment area. To permit comparison with that survey, the area of Palmerston was also included in the 1989 RFPS and the Darwin sample supplemented by a further 164. Of the 1,664 persons selected from the electoral rolls, 537 were either no longer living at the address, were outside the study area for the duration of the study, in prison or had died leaving 1,127 potential respondents. Of these, 1,000 actually participated in the survey, giving an overall response rate of 88.7 per cent. Age-group and sex are based on electoral roll information.

The response rate was a little lower for men (87%) than women (90%) and lower in the older age-groups. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

### Response rates by age and sex

	<i>Sample selected (a)</i>	<i>Ineligible (b)</i>	<i>Potential respondents (c)=(a)-(b)</i>	<i>Respondents (d)</i>	<i>Response rate (e)=(d)/(c)</i>
	<i>(Number)</i>	<i>(Number)</i>	<i>(Number)</i>	<i>(Number)</i>	<i>(Per cent)</i>
Sex					
Male	848	285	563	491	87.2
Female	816	252	564	509	90.2
Age					
20-29	411	191	220	200	90.9
30-39	534	164	370	333	90.0
40-49	432	102	330	294	89.1
50-59	195	54	141	117	83.0
60-69	92	26	66	56	84.8
<b>Total</b>	<b>1,664</b>	<b>537</b>	<b>1,127</b>	<b>1,000</b>	<b>88.7</b>

### Comparison of respondents and non-respondents

	<i>Respondents</i>		<i>Non-respondents</i>	
	<i>(Number)</i>	<i>(Per cent)</i>	<i>(Number)</i>	<i>(Per cent)</i>
Sex				
Male	491	49.1	72	56.7
Female	509	50.9	55	43.3
Age				
20-29	200	20.0	20	15.7
30-39	333	33.3	37	29.1
40-49	294	29.4	36	28.3
50-59	117	11.7	24	18.9
60-69	56	5.6	10	7.9
<b>Total</b>	<b>1,000</b>	<b>100.0</b>	<b>127</b>	<b>100.0</b>

**Table 1. Marital status, living arrangements, country of birth and education level**

	<i>Men</i>						<i>Women</i>					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Marital status</b>												
Never married	53	21	17	4	3	98	52	16	9	4	1	82
Now married	29	121	120	50	24	344	52	133	105	33	20	343
Separated but not divorced	3	5	8	3	—	19	5	11	10	3	—	29
Divorced	2	7	9	7	3	28	4	17	14	4	1	40
Widowed	—	1	—	1	—	2	—	1	2	7	5	15
<b>Living arrangements</b>												
Living with legal spouse	29	121	117	50	23	340	52	130	102	33	20	337
Living with partner (defacto)	12	13	9	4	—	38	21	17	11	—	—	49
Living with other persons	31	10	12	2	—	55	32	24	16	11	3	86
Living alone	15	11	16	9	7	58	8	7	11	7	4	37
<b>Country of birth</b>												
Australia	64	115	103	36	17	335	89	128	92	30	18	357
Other Oceania	2	5	7	1	1	16	1	8	4	—	—	13
United Kingdom	7	14	16	8	3	48	8	7	19	8	2	44
Northern Europe	2	2	10	5	2	21	—	3	4	2	1	10
Southern Europe	3	6	5	8	3	25	3	6	4	4	2	19
Asia	8	12	9	6	3	38	12	26	14	7	3	62
Africa	1	—	4	—	1	6	—	—	1	—	—	1
North & South America	—	1	—	1	—	2	—	—	2	—	1	3
<b>Education level</b>												
Never attended school	—	—	1	—	—	1	—	—	1	—	—	1
Primary school	2	1	7	15	8	33	4	11	17	4	9	45
Some high school	38	55	51	23	7	174	45	70	56	23	12	206
Completed high school	33	61	48	17	9	168	43	52	36	11	3	145
Tertiary institution	14	38	47	10	6	115	21	45	30	13	3	112
<b>Cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>113</b>	<b>178</b>	<b>140</b>	<b>51</b>	<b>27</b>	<b>509</b>

Table 2. Employment status, occupation, annual gross income and main source of income

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Employment status (a)</b>												
Working full time	81	148	141	48	11	429	71	84	85	32	5	277
Working part time only	2	3	9	4	2	20	12	49	33	9	1	104
Not working (but not retired)	—	2	3	3	3	11	6	2	1	—	—	9
Cases	83	153	153	55	16	460	89	135	119	41	6	390
<b>Occupation (b) (c)</b>												
Managers and administrators	3	30	29	12	2	76	8	9	10	6	—	33
Professionals	9	28	22	9	3	71	9	23	17	6	—	55
Para-professionals	16	22	33	10	1	82	10	14	17	2	—	43
Tradespersons	32	28	22	10	1	93	1	3	2	3	—	9
Clerks	5	12	14	2	1	34	40	51	42	13	5	151
Salespersons & personal service workers	12	9	2	2	1	26	14	21	16	5	—	56
Plant & machine operators, & drivers	2	13	13	4	2	34	—	3	1	—	1	5
Labourers & related workers	4	8	13	3	1	29	1	9	11	6	—	27
Not stated	—	1	2	—	1	4	—	—	2	—	—	2
Cases	83	151	150	52	13	449	83	133	118	41	6	381
<b>Annual gross income</b>												
No income	1	1	—	—	—	2	6	7	9	4	4	30
\$1-\$7,000	2	2	1	6	5	16	18	37	18	8	9	90
\$7,001-\$9,000	2	—	1	1	3	7	3	9	8	1	5	26
\$9,001-\$11,000	—	3	—	1	—	4	1	10	1	2	1	15
\$11,001-\$13,000	—	3	2	—	1	6	4	13	8	4	2	31
\$13,001-\$15,000	3	2	2	2	1	10	7	9	6	2	—	24
\$15,001-\$17,000	5	4	3	2	1	15	3	8	7	1	—	19
\$17,001-\$19,000	4	2	7	6	3	22	5	13	10	6	—	34
\$19,001-\$21,000	10	7	8	3	2	30	12	11	10	4	—	37
\$21,001-\$23,000	14	9	11	1	2	37	20	9	16	4	2	51
\$23,001-\$30,000	25	34	30	5	3	97	24	24	19	6	1	74
\$30,001-\$40,000	13	54	44	13	2	126	9	16	16	3	1	45
\$40,001 or more	7	28	38	20	5	98	—	3	7	2	—	12
Not stated	1	6	7	5	2	21	1	9	5	4	2	21
<b>Main source of income</b>												
Wages or salary	73	128	127	43	13	384	81	116	97	31	6	331
Own business/partnership (d)	11	21	20	8	1	61	5	17	16	5	1	44
Government pension (e)	1	4	3	7	8	23	20	33	14	5	15	87
Superannuation	—	—	2	5	7	14	—	—	—	1	1	2
Investment/interest	—	—	1	1	1	3	1	3	1	4	—	9
Other	1	1	1	1	—	4	1	2	2	1	—	6
No income	1	1	—	—	—	2	5	6	9	4	4	28
Not stated	—	—	—	—	—	—	—	1	1	—	—	2
Cases	87	155	154	65	30	491	113	178	140	51	27	509

(a) Employed full-time, part-time or not working.

(b) Employed full-time or part-time.

(c) Classified using the Australian Standard Classification of Occupations (see Appendix G).

(d) Own business or share in partnership.

(e) Any government pension or cash benefit.

Note: Employment status, annual gross income and main source of income relate to respondent only (not partner).

Table 3. Systolic and diastolic blood pressure

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Systolic blood pressure (mmHg) (a)</b>												
Less than 100	—	—	0.6	—	—	0.1	12.2	11.4	4.4	—	3.6	8.8
100-109	11.3	7.9	7.5	6.4	2.9	8.4	44.2	38.4	20.3	13.7	7.5	32.5
110-119	32.6	29.5	26.4	13.7	2.9	26.4	33.3	31.9	36.4	19.6	—	30.1
120-129	37.7	34.4	27.3	37.0	24.1	33.5	8.6	14.6	21.8	35.4	22.4	16.5
130-139	15.0	17.2	24.3	16.7	12.4	17.7	1.7	1.3	10.0	7.7	11.0	4.3
140-149	2.2	5.9	11.4	10.9	24.1	7.7	—	1.8	4.3	12.2	14.9	3.5
150-159	—	4.4	1.1	9.2	13.1	3.4	—	0.5	0.7	11.3	11.1	2.1
160-169	1.2	0.6	1.4	6.1	13.1	2.4	—	—	2.1	—	3.6	0.7
170 or more	—	—	—	—	7.3	0.5	—	—	—	—	25.9	1.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmHg)											
Mean	120	123	125	129	141	124	107	110	117	124	146	114
10th centile	108	110	110	110	120	110	96	98	101	106	107	100
Median	120	120	124	125	140	122	109	110	113	120	144	110
90th centile	130	140	140	151	168	142	120	122	135	150	185	130
Standard error of mean	1.5	1.0	0.8	1.8	3.3	0.6	1.1	0.8	1.0	2.1	6.1	0.7
	(Per cent)											
<b>Diastolic blood pressure (mmHg) (a)</b>												
Less than 60	7.0	2.4	1.1	3.2	—	3.5	24.8	17.2	4.4	2.1	3.7	14.9
60-64	19.5	6.5	7.5	4.5	2.9	10.3	36.3	21.9	23.9	16.9	14.9	26.1
65-69	10.1	15.0	6.9	3.1	2.9	9.7	10.3	17.3	12.6	6.3	7.4	12.4
70-74	28.7	24.2	22.0	22.9	27.8	25.2	21.6	24.3	27.5	27.1	11.2	23.4
75-79	10.4	12.3	13.6	15.7	6.6	12.0	4.2	7.6	7.9	11.9	7.4	6.9
80-84	19.6	16.6	22.9	22.8	29.2	20.4	1.9	6.0	10.9	16.4	18.5	7.4
85-89	2.4	8.5	7.0	10.8	24.1	7.5	0.8	2.8	5.6	7.7	11.1	3.7
90-94	1.2	9.9	13.4	9.3	2.9	7.4	—	2.4	2.8	11.6	14.7	3.3
95-99	1.2	3.4	5.6	1.5	—	2.7	—	—	2.3	—	7.4	0.9
100-104	—	—	—	3.1	3.7	0.6	—	—	1.4	—	—	0.3
105-109	—	0.6	—	1.6	—	0.4	—	—	—	—	—	—
110 or more	—	0.6	—	1.6	—	0.4	—	0.5	—	—	3.7	0.4
Not stated	—	—	—	—	—	—	—	—	0.8	—	—	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmHg)											
Mean	71	76	79	79	80	76	63	67	71	75	79	68
10th centile	60	65	65	68	70	62	50	53	60	61	60	54
Median	70	75	80	80	81	76	62	68	70	73	80	69
90th centile	81	90	92	94	88	90	71	80	85	90	95	82
Standard error of mean	1.3	0.8	0.7	1.3	1.6	0.5	0.9	0.7	0.7	1.4	3.0	0.5
<b>Number of cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>113</b>	<b>178</b>	<b>140</b>	<b>51</b>	<b>27</b>	<b>509</b>

(a) The average of two readings taken 5 minutes apart.



Table 4. Blood pressure: related statistics

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>When blood pressure last measured (a)</b>												
In the last three months	22.0	26.9	29.8	36.8	43.8	28.2	38.7	31.6	35.8	44.9	66.7	38.2
In the last six months	11.6	15.8	22.0	23.2	13.9	16.5	18.3	16.5	19.4	17.9	18.6	17.9
In the last year	18.6	20.8	19.6	15.3	23.4	19.4	19.1	23.4	23.4	17.9	7.4	20.4
In the last three years	23.4	19.2	15.9	9.2	2.9	17.7	17.9	12.3	11.4	9.8	3.6	13.2
More than three years ago	9.0	8.9	6.9	8.0	3.7	8.1	3.6	11.7	5.6	5.3	3.7	6.7
Never measured	3.2	1.4	0.8	—	3.7	1.8	1.7	0.7	—	—	—	0.8
Don't know	12.1	6.9	5.0	7.6	8.7	8.3	0.8	3.8	4.5	4.2	—	2.8
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high blood pressure (b)</b>	<b>10.8</b>	<b>17.2</b>	<b>18.8</b>	<b>29.3</b>	<b>40.9</b>	<b>18.4</b>	<b>11.6</b>	<b>12.2</b>	<b>16.0</b>	<b>25.9</b>	<b>55.4</b>	<b>16.8</b>
<b>On blood pressure tablets (c)</b>	<b>—</b>	<b>1.2</b>	<b>3.3</b>	<b>7.6</b>	<b>16.8</b>	<b>3.0</b>	<b>—</b>	<b>1.2</b>	<b>3.5</b>	<b>11.6</b>	<b>36.9</b>	<b>4.5</b>
<b>Hypertensives</b>												
Controlled (d)	—	1.2	2.8	7.6	10.2	2.4	—	1.2	2.0	11.6	26.0	3.5
Treated, uncontrolled (e)	—	—	0.6	—	6.6	0.5	—	—	1.5	—	10.9	1.0
Untreated (f)	2.4	5.1	5.0	9.3	13.9	5.3	—	0.5	2.8	—	18.6	1.9
<b>Total hypertensives</b>	<b>2.4</b>	<b>6.3</b>	<b>8.4</b>	<b>16.9</b>	<b>30.7</b>	<b>8.3</b>	<b>—</b>	<b>1.7</b>	<b>6.4</b>	<b>11.6</b>	<b>55.4</b>	<b>6.4</b>
<b>Normotensives (g)</b>	<b>97.6</b>	<b>93.7</b>	<b>91.6</b>	<b>83.1</b>	<b>69.3</b>	<b>91.7</b>	<b>100.0</b>	<b>98.3</b>	<b>93.6</b>	<b>88.4</b>	<b>44.6</b>	<b>93.6</b>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>113</b>	<b>178</b>	<b>139</b>	<b>51</b>	<b>27</b>	<b>508</b>

(a) Q9. When did you last have your blood pressure measured?

(b) Q11. Have you ever been told that you have high blood pressure?

(c) Q12. Are you on tablets for blood pressure?

(d) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

(e) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(f) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(g) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

Note: Classifications of hypertension are those used in the WHO MONICA Project.

**Table 5. Plasma cholesterol and related statistics**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Plasma cholesterol (mmol/L) (a) (b)</b>												
Less than 3.00	1.0	—	—	1.5	—	0.5	—	—	0.7	—	3.6	0.4
3.00-3.99	10.9	11.9	8.7	1.6	3.7	9.3	17.6	11.2	10.5	4.1	—	11.8
4.00-4.99	44.8	23.5	21.8	26.5	13.1	29.4	48.4	49.4	32.4	25.0	18.7	41.5
5.00-5.99	34.7	35.7	34.2	34.4	44.5	35.5	14.4	31.6	35.0	27.2	22.0	25.6
6.00-6.99	7.3	23.7	26.2	26.7	31.9	20.0	13.8	7.1	15.9	33.2	33.5	15.1
7.00-7.99	1.3	4.0	8.5	7.7	3.7	4.5	5.9	0.7	4.8	8.2	7.3	4.3
8.00-8.99	—	—	—	1.6	3.1	0.4	—	—	0.7	2.2	11.1	1.1
9.00 or more	—	1.2	0.6	—	—	0.5	—	—	—	—	3.7	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmol/L)											
Mean	4.90	5.38	5.55	5.64	5.86	5.33	4.85	4.85	5.20	5.68	6.25	5.09
10th centile	3.82	3.87	4.10	4.50	4.58	4.00	3.84	3.98	3.95	4.26	4.50	3.92
Median	4.88	5.39	5.57	5.64	5.80	5.38	4.60	4.75	5.10	5.71	6.10	5.00
90th centile	5.90	6.70	6.90	6.96	6.90	6.70	6.30	5.85	6.60	7.20	8.50	6.50
Standard error of mean	0.13	0.09	0.07	0.11	0.19	0.05	0.22	0.06	0.07	0.14	0.29	0.05
	(Per cent)											
Cholesterol $\geq$ 5.5 mmol/L	20.6	44.7	55.0	59.6	68.6	42.6	23.9	16.9	33.3	54.1	73.9	29.5
Cholesterol $\geq$ 6.5 mmol/L	4.8	14.6	17.5	17.4	24.6	13.1	9.6	3.5	11.4	25.0	37.0	11.2
<b>Number of cases</b>	<b>84</b>	<b>154</b>	<b>152</b>	<b>64</b>	<b>29</b>	<b>483</b>	<b>51</b>	<b>143</b>	<b>129</b>	<b>48</b>	<b>27</b>	<b>398</b>
	(Per cent)											
<b>When blood cholesterol last measured (c)</b>												
In the last three months	4.8	6.9	5.6	7.9	2.9	5.8	1.9	6.3	10.2	21.1	7.4	7.1
In the last six months	2.4	6.9	10.1	15.8	16.8	7.8	1.7	1.7	5.0	6.0	11.2	3.3
In the last year	4.6	12.3	10.6	18.1	13.1	10.2	5.5	13.3	10.7	14.3	10.9	10.2
In the last three years	9.4	13.4	16.8	6.1	7.3	11.7	6.7	9.2	16.7	18.2	7.5	10.6
More than three years ago	2.4	3.8	7.5	6.3	10.2	4.8	—	7.2	6.5	3.6	3.7	4.2
Never measured	57.3	43.4	38.3	32.0	16.0	43.6	70.0	55.5	44.9	32.7	37.0	54.9
Don't know	19.1	13.3	11.1	13.8	33.6	16.0	14.3	6.8	6.0	4.2	22.3	9.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high cholesterol (d)</b>	<b>3.6</b>	<b>12.9</b>	<b>15.0</b>	<b>26.7</b>	<b>27.0</b>	<b>12.9</b>	<b>1.7</b>	<b>3.5</b>	<b>10.6</b>	<b>19.3</b>	<b>18.5</b>	<b>6.7</b>
<b>Treatment to lower blood fat (e)</b>	<b>—</b>	<b>1.4</b>	<b>—</b>	<b>3.1</b>	<b>7.3</b>	<b>1.2</b>	<b>0.7</b>	<b>—</b>	<b>6.0</b>	<b>7.5</b>	<b>1.2</b>	<b>—</b>
<b>Number of cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>113</b>	<b>178</b>	<b>140</b>	<b>51</b>	<b>27</b>	<b>509</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q10. When did you last have your blood cholesterol measured?

(d) Q11. Have you ever been told that you have high cholesterol?

(e) Q13. Are you having treatment to lower your blood fat?

Table 6. HDL cholesterol and plasma triglycerides

ages	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
	<b>HDL cholesterol (mmol/L) (a) (b)</b>											
	—	—	—	—	—	—	—	—	—	—	—	—
0.4	29.7	31.0	34.8	30.9	27.7	31.2	13.3	9.7	7.7	10.4	14.7	10.9
1.8	62.7	55.4	51.1	54.8	65.4	57.3	61.2	51.8	52.3	57.8	55.6	55.8
11.5	3.8	11.1	13.3	12.6	6.8	9.2	23.4	32.9	31.3	23.5	18.6	27.7
15.6	3.8	2.4	—	1.6	—	2.1	2.1	4.9	4.6	8.2	7.4	4.4
5.1	—	—	0.8	—	—	0.2	—	0.7	3.3	—	3.7	1.1
4.3	—	—	—	—	—	—	—	—	0.7	—	—	0.1
1.1	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
0.2	(mmol/L)											
10.0	1.13	1.17	1.15	1.17	1.12	1.15	1.33	1.40	1.44	1.35	1.40	1.38
5.09	0.80	0.84	0.82	0.78	0.80	0.80	0.95	1.00	1.02	0.96	0.97	0.97
3.92	1.08	1.10	1.10	1.16	1.10	1.10	1.29	1.36	1.40	1.33	1.34	1.36
5.00	1.40	1.60	1.50	1.60	1.43	1.50	1.82	1.90	1.88	1.96	2.10	1.85
5.50	0.04	0.02	0.02	0.04	0.05	0.01	0.07	0.03	0.03	0.05	0.08	0.02
0.05	(Per cent)											
	<b>Plasma triglyceride (mmol/L) (b)</b>											
29.5	4.3	1.2	0.8	—	—	1.9	7.4	5.5	3.2	—	—	4.8
11.2	32.0	31.0	25.9	25.4	6.8	28.1	67.0	61.6	54.7	29.5	33.4	57.2
398	42.8	31.1	29.7	30.7	42.4	35.1	4.3	19.5	21.9	34.7	18.4	16.3
7.1	9.6	10.5	19.0	14.3	20.4	13.1	13.3	9.7	13.2	16.8	25.9	13.3
3.3	2.5	13.1	10.2	11.0	6.3	8.5	8.0	2.2	4.0	8.6	7.4	5.4
10.2	5.0	5.6	5.6	3.3	3.1	5.0	—	0.7	1.6	3.7	3.7	1.1
10.6	3.8	5.6	6.2	13.9	17.3	6.8	—	0.7	0.7	4.5	7.5	1.3
4.2	—	1.8	2.5	1.5	3.7	1.5	—	—	—	2.2	3.7	0.4
54.9	—	—	—	—	—	—	—	—	0.7	—	—	0.1
9.9	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
00.0	(mmol/L)											
6.7	1.29	1.74	1.66	1.75	2.05	1.60	0.95	0.95	1.07	1.59	2.25	1.11
1.2	0.60	0.63	0.69	0.80	1.06	0.70	0.50	0.51	0.58	0.70	0.81	0.53
509	1.11	1.21	1.40	1.45	1.50	1.30	0.77	0.80	0.90	1.21	1.41	0.90
	2.40	2.65	2.90	3.30	4.10	2.70	1.88	1.60	1.70	2.50	3.60	1.88
	0.11	0.26	0.08	0.12	0.26	0.09	0.12	0.04	0.04	0.18	0.71	0.06
	84	154	152	64	29	483	51	143	129	48	27	398
	(Per cent)											
	—	3.2	4.2	10.9	13.9	3.9	—	—	3.5	2.1	7.5	1.4
	87	155	154	65	30	491	113	178	140	51	27	509

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q11. Have you ever been told that you have high triglycerides?

**Table 7. Smoking behaviour and alcohol consumption**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>(Per cent)</i>												
<b>Smoking behaviour</b>												
<b>Smoking status (a)</b>												
Cigarette smoker (b) (c)	37.5	39.4	33.7	42.9	25.5	37.1	31.9	23.2	23.0	23.8	29.6	26.5
Cigar and/or pipe only	—	1.2	0.6	2.9	—	0.8	—	0.5	—	—	—	0.2
Ex-smokers	13.0	27.5	27.3	28.0	51.1	24.5	13.0	23.2	21.7	13.7	14.9	18.2
Never smoked regularly	48.5	31.9	37.9	26.2	23.4	37.1	55.1	53.0	55.3	62.5	55.6	55.2
Not stated	1.0	—	0.6	—	—	0.4	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>113</b>	<b>178</b>	<b>140</b>	<b>51</b>	<b>27</b>	<b>509</b>
<i>(Per cent)</i>												
<b>Manufactured cigarettes a day (d)</b>												
1-10	36.4	18.1	22.8	26.3	15.3	26.0	32.9	25.4	15.7	32.5	37.2	28.2
11-20	28.6	33.4	32.5	13.2	19.3	28.7	27.0	31.1	27.0	17.5	12.6	26.3
21-40	31.5	41.5	33.3	43.2	15.3	35.8	34.9	41.3	51.5	50.0	50.2	41.8
41 or more	3.4	7.0	11.4	17.3	50.0	9.5	5.3	2.3	5.9	—	—	3.7
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(Cigarettes)</i>												
Mean	18	23	24	25	46	23	19	19	24	20	20	20
Standard error of mean	2.1	1.7	2.1	3.2	14.8	1.2	2.0	1.6	2.1	3.9	4.0	1.0
<b>Number of cases</b>	<b>31</b>	<b>53</b>	<b>45</b>	<b>23</b>	<b>6</b>	<b>158</b>	<b>37</b>	<b>42</b>	<b>33</b>	<b>12</b>	<b>8</b>	<b>132</b>
<i>(Per cent)</i>												
<b>Alcohol consumption</b>												
<b>Usual frequency (e)</b>												
I don't drink alcohol	4.4	15.0	10.3	27.3	18.9	12.3	25.9	22.5	28.7	34.8	33.1	26.6
Less than once a week	27.8	13.6	14.7	9.3	6.6	17.3	45.6	36.7	28.2	25.6	14.7	35.5
On 1 or 2 days a week	30.0	15.7	24.8	12.5	16.8	21.8	16.0	18.2	12.8	17.6	15.0	16.2
On 3 or 4 days a week	22.9	20.0	17.3	14.0	10.2	19.0	9.2	12.9	12.6	6.0	3.7	10.4
On 5 or 6 days a week	8.0	17.0	9.2	12.4	11.0	11.7	2.5	5.0	2.1	2.1	3.7	3.3
Every day	6.8	18.6	23.6	24.5	36.5	17.8	0.8	4.7	15.5	14.0	29.7	8.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Usual consumption (f)</b>												
I don't drink alcohol	4.4	15.0	10.3	27.3	18.9	12.3	25.9	22.5	28.7	34.8	33.1	26.6
1 or 2 drinks	23.9	24.2	31.3	29.4	29.9	26.5	35.1	46.7	52.3	46.7	37.1	43.4
3 or 4 drinks	34.5	35.6	32.0	23.2	19.7	32.1	27.1	23.9	16.1	14.3	26.1	22.7
5 to 8 drinks	31.4	20.8	23.0	13.8	31.4	24.5	9.4	6.4	2.9	4.2	—	6.1
9 to 12 drinks	4.6	3.8	3.4	3.1	—	3.6	2.5	0.5	—	—	3.7	1.2
13 to 20 drinks	1.2	—	—	1.6	—	0.5	—	—	—	—	—	—
More than 20 drinks	—	0.6	—	1.6	—	0.4	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Alcohol index</b>												
Intermediate risk or more (g)	10.4	15.3	12.9	15.3	27.8	14.1	7.5	7.5	9.9	10.1	18.7	8.9
<b>Number of cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>113</b>	<b>178</b>	<b>140</b>	<b>51</b>	<b>27</b>	<b>509</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe.

(c) Includes persons who smoke hand-rolled cigarettes.

(d) Current smokers of manufactured cigarettes.

(e) Q33. How often do you usually drink alcohol?

(f) Q34. On a day when you drink alcohol, how many drinks do you usually have?

(g) Men: average daily consumption of at least 5 drinks or occasional excess.

Women: average daily consumption of at least 4 drinks or at least 9 drinks in any one day.

} See Appendix F.

Table 8. Height, weight and weight for height

ages	Men					Women (a)						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
	<b>Height (cm) (b)</b>											
	Under 150	—	—	—	—	—	1.3	2.7	0.7	7.4	3.7	2.3
26.5	150-159	1.0	1.6	1.6	—	2.9	1.3	29.6	27.3	30.8	25.9	55.2
0.2	160-169	10.1	13.2	10.8	33.3	24.0	14.6	50.5	56.3	53.2	53.3	33.5
18.2	170-179	51.7	53.5	56.3	46.2	62.9	53.4	16.9	13.2	14.6	9.5	3.7
55.2	180-189	30.0	29.7	28.2	20.5	10.2	27.2	1.7	0.5	0.8	—	—
—	190+	6.0	1.2	3.1	—	—	2.9	—	—	—	—	—
100.0	Not stated	1.2	0.8	—	—	—	0.6	—	—	—	3.9	3.7
509	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(cm)											
	Mean	177.7	176.1	176.3	173.6	172.7	176.2	163.4	162.8	163.0	161.2	159.6
28.2	10th centile	169.0	167.0	167.0	166.0	166.0	167.0	155.0	154.0	154.0	154.0	153.0
26.3	Median	177.0	177.0	176.0	173.0	172.5	176.0	164.0	163.0	163.0	161.0	158.0
41.8	90th centile	188.0	185.0	183.0	182.0	181.0	185.0	171.0	171.0	172.0	169.0	168.0
3.7	Standard error of mean	1.05	0.52	0.44	0.71	1.15	0.31	0.84	0.47	0.46	0.93	1.21
100.0												
	(Per cent)											
	<b>Weight (kg) (c)</b>											
	Less than 50	1.2	—	1.6	1.5	2.9	1.1	10.8	14.2	7.6	3.9	7.5
20	50-59	8.7	5.7	3.1	3.1	2.9	5.6	43.5	35.4	32.4	27.4	25.9
1.0	60-69	30.4	17.4	14.7	19.8	12.4	20.8	27.6	28.7	32.3	42.0	26.0
132	70-79	24.6	36.2	30.3	33.8	38.0	31.2	13.8	11.9	17.7	9.5	22.2
	80-89	22.2	22.2	26.6	29.4	23.4	24.0	2.6	7.2	5.0	11.9	11.1
	90-99	4.6	13.3	16.4	4.7	16.8	10.6	0.9	2.7	1.5	3.6	7.4
	100-109	4.8	3.8	5.0	6.3	—	4.4	—	—	2.8	—	—
26.6	110 or more	3.6	1.4	2.3	1.5	3.7	2.4	0.9	—	0.7	—	—
35.5	Not stated	—	—	—	—	—	—	—	—	—	1.8	—
16.2	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
10.4												
3.3												
8.0												
100.0												
	(kg)											
	Mean	75.6	78.4	80.6	77.6	79.8	78.0	61.1	62.0	64.2	65.1	67.3
	10th centile	60.0	64.2	66.8	65.0	64.7	63.0	49.3	49.2	50.5	53.4	52.0
	Median	73.2	77.6	80.4	76.9	76.5	77.8	59.0	60.0	61.9	62.9	65.7
	90th centile	94.0	92.8	97.1	90.4	97.2	94.2	74.2	79.5	79.5	80.6	89.0
26.6	Standard error of mean	2.08	0.95	0.88	1.36	2.72	0.60	1.36	0.86	0.94	1.44	2.94
43.4												
22.7												
6.1												
1.2												
—												
—												
100.0	Total	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
	(kg/m <sup>2</sup> )											
	Mean	23.7	24.9	25.6	25.4	26.3	24.8	22.5	23.0	23.7	24.8	26.2
8.9	10th centile	19.8	20.7	21.0	21.2	22.9	20.3	18.2	18.7	18.7	20.9	20.5
509	Median	22.8	24.8	25.2	25.2	26.1	24.8	21.9	22.2	23.3	23.8	25.7
	90th centile	29.4	29.5	30.0	29.9	30.0	29.7	27.5	28.2	28.6	30.0	33.0
	Standard error of mean	0.54	0.29	0.26	0.40	0.70	0.17	0.50	0.29	0.30	0.51	1.18
	Number of cases	87	155	154	65	30	491	106	175	139	51	27

(a) Excludes pregnant women.

(b) Height in stockings feet.

(c) Weight in stockings feet and light street clothing.

(d) Based on body mass index (Wt-1/Ht<sup>2</sup>). See Appendix E.

Table 9. Waist circumference, hip circumference and waist to hip ratio

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Waist circumference (cm) (b)</b>							<i>(Per cent)</i>					
Less than 60	1.2	—	—	—	—	0.4	2.6	3.6	1.6	—	—	2.3
60-69	3.1	—	2.2	3.1	2.9	1.9	53.9	38.9	26.6	17.9	11.1	37.7
70-79	37.7	16.6	8.1	10.7	2.9	19.8	33.6	35.7	43.1	41.1	22.2	36.1
80-89	27.6	35.8	27.8	23.2	10.2	28.6	6.0	14.8	20.9	25.9	37.3	15.6
90-99	19.8	33.5	38.7	35.4	32.8	30.5	2.1	6.5	2.8	9.5	18.3	5.4
100-109	8.2	11.3	15.6	20.0	47.5	14.5	—	0.5	2.0	5.6	3.7	1.3
110 or more	2.4	2.8	7.6	7.7	3.7	4.3	1.7	—	2.9	—	7.4	1.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(cm)</i>					
Mean	84.3	89.2	92.4	92.8	98.8	89.4	70.4	72.7	75.5	79.4	84.9	73.9
10th centile	73.0	77.0	79.0	77.0	86.0	75.5	62.0	63.0	64.0	68.0	69.0	63.0
Median	81.0	89.0	92.0	92.0	99.3	90.5	68.3	70.5	73.0	76.0	86.5	72.0
90th centile	102.0	101.0	108.0	104.0	109.0	105.0	79.0	85.5	86.0	96.0	108.0	87.5
Standard error of mean	1.70	0.78	0.77	1.26	1.98	0.53	1.10	0.66	0.77	1.43	2.75	0.48
<b>Hip circumference (cm) (b)</b>							<i>(Per cent)</i>					
less than 85	2.2	—	1.6	1.5	2.9	1.4	3.0	5.0	2.4	—	3.7	3.3
85-89	6.5	7.9	3.1	3.1	2.9	5.6	10.8	6.4	6.0	3.9	7.5	7.6
90-94	26.1	10.7	9.9	16.5	5.8	15.6	23.7	23.6	19.7	15.5	7.3	21.1
95-99	19.6	29.1	24.0	29.3	27.8	25.0	19.9	23.4	20.2	20.3	18.6	21.0
100-104	23.4	26.7	29.0	26.2	36.5	26.8	27.2	19.9	17.8	33.6	7.5	22.3
105-109	11.4	16.6	20.4	17.3	13.9	15.7	2.6	7.9	14.8	11.6	22.3	8.8
110-114	8.4	6.1	7.0	4.7	6.6	6.9	9.4	5.6	10.7	7.7	7.3	8.1
115-119	—	1.2	3.3	—	—	1.1	0.9	4.3	4.3	2.1	14.7	3.6
120 or more	2.4	1.6	1.7	1.5	3.7	2.0	2.6	4.0	4.2	3.6	11.1	4.0
Not stated	—	—	—	—	—	—	—	—	—	1.8	—	0.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(cm)</i>					
Mean	98.4	100.2	101.3	99.9	101.8	100.0	98.1	98.9	101.3	101.6	105.0	99.7
10th centile	91.0	91.0	92.0	92.0	93.0	91.0	88.0	89.0	90.0	93.0	88.0	88.5
Median	97.0	101.0	101.0	99.0	101.0	100.0	97.8	99.0	100.0	102.0	106.0	99.0
90th centile	110.0	109.0	110.0	109.0	110.0	109.0	110.0	113.0	114.0	111.5	122.0	112.0
Standard error of mean	1.26	0.56	0.49	0.78	1.57	0.36	1.16	0.68	0.73	1.00	2.65	0.44
<b>Waist to hip ratio</b>							<i>(Per cent)</i>					
Less than 0.699	—	—	—	—	—	—	33.3	26.3	20.9	16.1	—	25.0
0.700-0.799	18.0	5.8	3.8	3.2	—	8.5	61.9	64.7	62.4	49.1	48.0	60.9
0.800-0.899	56.4	52.6	36.8	24.6	10.3	44.7	2.1	8.9	13.8	29.5	44.6	11.9
0.900-0.999	20.8	37.8	48.2	63.0	54.7	38.6	0.9	—	2.2	1.8	7.4	1.4
1.000 or more	2.4	3.2	9.6	9.2	35.1	7.0	—	—	—	—	—	—
Not stated	2.2	0.6	1.6	—	—	1.2	1.7	—	0.7	3.6	—	1.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
							<i>(Waist/Hip)</i>					
Mean	0.854	0.889	0.910	0.927	0.970	0.892	0.717	0.735	0.745	0.776	0.807	0.739
10th centile	0.775	0.820	0.814	0.833	0.869	0.802	0.667	0.677	0.678	0.688	0.725	0.673
Median	0.848	0.887	0.914	0.939	0.977	0.902	0.716	0.736	0.741	0.772	0.803	0.736
90th centile	0.955	0.969	0.990	0.990	1.061	0.982	0.760	0.791	0.817	0.875	0.891	0.814
Standard error of mean	0.009	0.004	0.004	0.008	0.012	0.003	0.006	0.003	0.004	0.009	0.012	0.003
<b>Number of cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>106</b>	<b>175</b>	<b>139</b>	<b>51</b>	<b>27</b>	<b>498</b>

(a) Excludes pregnant women.

(b) The average of two measurements.

Table 10. Dietary behaviour and exercise during leisure time

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Eat fat on meat (a)</b>												
Usually	16.1	22.0	24.5	24.6	11.6	20.4	6.2	8.3	7.4	6.0	11.1	7.4
Sometimes	33.1	38.7	36.2	23.3	44.6	35.1	23.1	29.6	25.5	40.1	7.5	26.2
Rarely or never	50.8	39.3	39.3	52.1	43.8	44.5	70.7	62.1	67.1	53.9	81.4	66.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Add salt to food (b)</b>												
Rarely or never	45.1	39.7	37.9	44.7	25.5	40.6	60.5	48.9	46.3	42.8	55.2	52.0
Sometimes	28.9	31.9	35.2	22.8	38.0	31.1	25.6	39.1	34.8	33.0	26.1	32.4
Almost always or always	26.0	28.3	27.0	32.5	36.5	28.3	13.9	12.0	18.8	24.1	18.7	15.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Exercise during leisure time (c)</b>												
<b>Vigorous exercise (d)</b>												
Group 1 (e)	30.3	15.0	13.1	12.6	3.7	18.2	19.8	10.4	6.3	4.2	—	11.4
Group 2 (f)	26.7	35.3	18.5	9.2	—	23.9	28.4	20.7	14.5	11.9	—	19.8
Less vigorous exercise (g)	42.0	39.2	40.1	35.3	24.1	38.8	44.8	28.2	29.9	22.0	22.2	33.0
Walking	37.5	36.9	50.2	43.4	50.4	41.6	54.0	55.4	49.0	42.0	29.6	50.8
No exercise of any kind	17.3	24.5	24.7	39.7	39.4	25.0	21.9	29.2	39.0	45.8	59.3	32.2
<b>Number of cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>113</b>	<b>178</b>	<b>140</b>	<b>51</b>	<b>27</b>	<b>509</b>

- (a) Q37. How often do you eat the fat on meat?
- (b) Q35. Do you add salt to your food after it is cooked?
- (c) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.
- (d) Exercise which made you breathe harder or puff and pant.
- (e) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.
- (f) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.
- (g) Exercise which did not make you breathe harder or puff and pant.

Note: Respondents in the exercise table may be counted in more than one category.

**Table 11. Multiple major risk factors (a)**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Risk factors present (b)</b>												
No risk factors	57.7	49.7	52.6	46.1	46.7	52.2	65.4	73.9	67.5	58.9	48.3	66.8
One factor	41.3	42.8	39.1	40.1	53.3	41.9	31.9	24.4	28.2	34.8	33.1	29.1
Two factors	1.0	6.9	7.5	12.4	—	5.4	2.7	1.7	4.4	6.3	11.2	3.6
Three factors	—	0.6	0.8	1.5	—	0.5	—	—	—	—	7.4	0.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Risk factors present (c)</b>												
No risk factors	58.9	50.7	54.8	43.1	46.7	53.0	65.4	73.9	68.8	58.9	48.3	67.1
One factor	40.1	43.6	38.2	46.2	53.3	42.3	31.9	24.4	27.6	34.8	33.1	29.0
Two factors	1.0	5.7	6.1	9.2	—	4.4	2.7	1.7	3.6	6.3	11.2	3.4
Three factors	—	—	0.8	1.5	—	0.3	—	—	—	—	7.4	0.5
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>87</b>	<b>155</b>	<b>154</b>	<b>65</b>	<b>30</b>	<b>491</b>	<b>113</b>	<b>178</b>	<b>140</b>	<b>51</b>	<b>27</b>	<b>509</b>

(a) Risk factors were considered present if participants were smokers, had raised blood pressure or raised plasma cholesterol (whether fasted or not). Prevalence rates of zero, one, any two, or all three risk factors were determined, based on the definitions given below.

(b) Definition 1 (used in previous RFPS reports):

Raised blood pressure: diastolic blood pressure  $\geq 95$  mmHg.

Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.

Smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily (cigar and/or pipe smoking is not included).

(c) Definition 2 (used in the WHO MONICA project):

Hypertension: systolic blood pressure  $\geq 160$  mmHg and/or diastolic blood pressure  $\geq 95$  mmHg and/or on tablets for blood pressure.

Raised plasma cholesterol: plasma cholesterol  $\geq 6.5$  mmol/L.

Smoking: regular cigarette, cigar and/or pipe smokers.



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## RISK FACTOR SUMMARY

	Men	Women
	<i>(Per cent)</i>	
<b>Hypertension (a)</b>	16	8
<b>Raised cholesterol</b>		
$\geq 5.5\text{mmol/L}$	44	37
$\geq 6.5\text{ mmol/L}$	15	13
<b>Smoking</b>		
Cigarette smokers	24	18
Cigarettes per day	19	15
<b>Multiple major risk factors (b)</b>		
At least one	42	30
Two or three	8	3
<b>Overweight and obesity (c)</b>		
Overweight	40	24
Obese	9	12
<b>Dietary behaviour</b>		
Usually eat fat on meat	17	7
Always add salt (d)	14	10
<b>Exercise during leisure time (e)</b>		
No exercise of any kind	20	25
Vigorous exercise	49	31
Walking	54	64

(a) See Table 4.

(b) See definition 1 in Table 11.

(c) See Table 8 and Appendix E.

(d) Almost always or always add salt to food after it is cooked (see Table 10).

(e) For recreation, sport or health fitness (see Table 10).

### Response analysis

Of the 1,500 persons selected from the electoral rolls, 250 were either no longer living at the address, were outside the study area for the duration of the study, in prison or had died leaving 1,250 potential respondents. Of these, 981 actually participated in the survey, giving an overall response rate of 78.5 per cent. Age-group and sex are based on electoral roll information.

The response rate was a little higher for men (80%) than women (77%) and lowest (70%) in the youngest age-group. Any imbalance in the age distribution of respondents is adjusted for in the estimation procedure.

#### Response rates by age and sex

	Sample selected (a)	Ineligible (b)	Potential respondents (c)=(a)-(b)	Respondents (d)	Response rate (e)=(d)/(c)
	(Number)	(Number)	(Number)	(Number)	(Per cent)
Sex					
Male	748	137	611	491	80.4
Female	752	113	639	490	76.7
Age					
20-29	382	96	286	200	69.9
30-39	408	87	321	254	79.1
40-49	369	42	327	271	82.9
50-59	201	15	186	152	81.7
60-69	140	10	130	104	80.0
<b>Total</b>	<b>1,500</b>	<b>250</b>	<b>1,250</b>	<b>981</b>	<b>78.5</b>

#### Comparison of respondents and non-respondents

	Respondents		Non-respondents	
	(Number)	(Per cent)	(Number)	(Per cent)
Sex				
Male	491	50.0	120	44.6
Female	490	50.0	149	55.4
Age				
20-29	200	20.4	86	32.0
30-39	254	25.9	67	24.9
40-49	271	27.6	56	20.8
50-59	152	15.5	34	12.6
60-69	104	10.6	26	9.7
<b>Total</b>	<b>981</b>	<b>100.0</b>	<b>269</b>	<b>100.0</b>

**Table 1. Marital status, living arrangements, country of birth and education level**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Marital status</b>												
Never married	74	15	4	3	3	99	54	15	1	—	1	71
Now married	31	99	119	61	46	356	38	103	121	68	33	363
Separated but not divorced	1	4	4	2	1	12	1	6	—	1	3	11
Divorced	—	6	6	5	—	17	1	5	14	7	4	31
Widowed	—	—	—	2	4	6	—	—	2	1	11	14
Not stated	—	1	—	—	—	1	—	—	—	—	—	—
<b>Living arrangements</b>												
Living with legal spouse	31	99	117	61	48	356	37	101	118	66	31	353
Living with partner (defacto)	7	7	7	4	—	25	8	6	6	2	—	22
Living with other persons	61	15	5	1	1	83	43	11	8	6	5	73
Living alone	7	4	4	7	5	27	5	11	6	3	15	40
Not stated	—	—	—	—	—	—	1	—	—	—	1	2
<b>Country of birth</b>												
Australia	88	93	91	37	31	340	84	100	85	49	36	354
Other Oceania	1	1	1	1	3	7	3	2	4	1	1	11
United Kingdom	6	15	16	15	7	59	4	6	18	11	7	46
Northern Europe	1	5	12	7	7	32	—	9	14	5	4	32
Southern Europe	2	3	4	9	6	24	2	3	9	5	4	23
Asia	5	6	6	2	—	19	1	8	6	5	—	20
Africa	1	2	—	1	—	4	—	—	—	—	—	—
North & South America	2	—	3	1	—	6	—	1	2	1	—	4
<b>Education level</b>												
Never attended school	—	—	—	1	—	1	—	—	—	1	—	1
Primary school	—	—	1	13	11	25	—	1	6	5	10	22
Some high school	15	25	34	14	17	105	25	35	41	34	20	155
Completed high school	53	35	34	14	10	146	41	34	36	18	14	143
Tertiary institution	38	65	64	31	16	214	28	59	55	19	8	169
<b>Cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>490</b>

Table 2. Employment status, occupation, annual gross income and main source of income

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Number)											
<b>Employment status (a)</b>												
Working full time	78	119	124	56	17	394	53	66	80	39	4	242
Working part time only	19	4	—	2	5	30	16	44	37	15	4	116
Not working (but not retired)	2	1	3	4	3	13	4	—	2	3	—	9
Cases	99	124	127	62	25	437	73	110	119	57	8	367
<b>Occupation (b) (c)</b>												
Managers and administrators	6	27	38	15	2	88	1	12	12	5	—	30
Professionals	22	36	39	10	5	112	6	30	33	7	3	79
Para-professionals	9	14	10	3	—	36	3	10	6	3	—	22
Tradespersons	13	18	13	8	4	56	3	1	3	1	—	8
Clerks	17	13	8	7	3	48	38	39	41	27	4	149
Salespersons & personal service workers	15	2	3	2	2	24	12	8	14	7	—	41
Plant & machine operators, & drivers	6	6	6	5	2	25	—	4	1	—	—	5
Labourers & related workers	9	6	7	7	3	32	5	4	7	4	1	21
Not stated	—	1	—	1	1	3	1	2	—	—	—	3
Cases	97	123	124	58	22	424	69	110	117	54	8	358
<b>Annual gross income</b>												
No income	1	—	2	3	2	8	8	12	12	11	3	46
\$1-\$7,000	15	—	1	2	6	24	17	17	14	10	19	77
\$7,001-\$9,000	4	1	1	2	3	11	1	2	2	3	4	12
\$9,001-\$11,000	3	1	4	1	4	13	7	9	8	4	3	31
\$11,001-\$13,000	2	—	2	—	1	5	1	6	8	2	2	19
\$13,001-\$15,000	3	—	1	2	1	7	3	6	4	8	4	25
\$15,001-\$17,000	6	2	2	1	3	14	7	8	7	3	—	25
\$17,001-\$19,000	5	3	4	—	4	16	7	5	8	4	2	26
\$19,001-\$21,000	7	5	4	6	5	27	4	9	6	5	2	26
\$21,001-\$23,000	13	9	4	2	4	32	9	9	11	8	2	39
\$23,001-\$30,000	16	25	14	12	13	80	21	13	19	5	1	59
\$30,001-\$40,000	21	45	30	19	5	120	7	21	29	10	1	68
\$40,001 or more	10	33	64	22	2	131	—	10	7	2	3	22
Not stated	—	1	—	1	1	3	2	2	3	2	6	15
<b>Main source of income</b>												
Wages or salary	90	114	108	49	14	375	67	97	100	47	8	319
Own business/partnership (d)	6	9	18	8	4	45	3	10	15	4	1	33
Government pension (e)	7	1	4	3	9	24	13	6	4	4	20	47
Superannuation	—	—	—	8	19	27	—	1	1	4	10	16
Investment/interest	—	—	—	3	5	8	2	3	5	8	7	25
Other	2	—	1	—	1	4	2	2	1	—	2	7
No income	1	—	2	2	2	7	6	9	12	10	3	40
Not stated	—	1	—	—	—	1	1	1	—	—	1	3
Cases	106	125	133	73	54	491	94	129	138	77	52	490

(a) Employed full-time, part-time or not working.

(b) Employed full-time or part-time.

(c) Classified using the Australian Standard Classification of Occupations (see Appendix G).

(d) Own business or share in partnership.

(e) Any government pension or cash benefit.

Note: Employment status, annual gross income and main source of income relate to respondent only (not partner).

**Table 3. Systolic and diastolic blood pressure**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>(Per cent)</i>												
<b>Systolic blood pressure (mmHg) (a)</b>												
Less than 100	—	3.4	1.9	—	—	1.4	12.7	11.8	5.9	—	2.4	8.6
100-109	16.1	8.4	6.8	4.3	—	9.2	27.9	31.0	19.1	10.3	6.9	23.1
110-119	36.3	30.4	24.7	18.4	9.3	27.9	38.5	35.5	27.9	18.1	9.9	30.6
120-129	28.8	31.6	31.6	17.6	16.7	27.9	18.1	15.3	27.0	24.8	18.1	20.0
130-139	11.3	20.7	16.4	20.3	16.7	16.6	0.9	4.9	10.4	26.0	9.3	7.7
140-149	5.7	3.0	12.0	22.2	18.5	9.3	1.9	0.7	8.2	10.4	18.1	5.2
150-159	1.8	—	5.2	11.3	20.3	4.6	—	0.7	1.5	5.2	15.7	2.5
160-169	—	1.7	1.3	2.7	11.1	1.9	—	—	—	2.6	9.3	1.1
170 or more	—	0.8	—	3.1	7.5	1.2	—	—	—	2.6	10.4	1.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(mmHg)</i>												
Mean	120	122	126	134	144	125	111	111	119	129	140	117
10th centile	107	109	110	112	120	109	99	98	101	109	114	100
Median	119	122	125	132	142	125	110	112	118	127	140	116
90th centile	138	138	147	157	165	146	124	125	138	150	170	139
Standard error of mean	1.3	1.2	1.1	1.8	2.3	0.7	1.3	1.1	1.0	1.6	2.8	0.7
<i>(Per cent)</i>												
<b>Diastolic blood pressure (mmHg) (a)</b>												
Less than 60	9.2	4.1	1.9	—	—	4.3	18.1	10.4	2.2	—	5.8	9.3
60-64	5.7	2.4	2.3	—	3.6	3.2	22.3	14.3	10.7	7.9	5.2	14.4
65-69	17.9	10.5	4.9	4.8	1.9	10.1	21.1	22.3	15.1	6.4	5.8	17.2
70-74	18.5	17.3	9.7	12.8	3.7	14.4	15.5	21.2	22.5	17.0	15.7	18.9
75-79	20.2	19.2	19.6	10.6	22.2	18.8	15.5	12.9	16.4	16.8	8.2	14.5
80-84	12.2	17.3	18.5	10.9	24.1	15.8	5.6	11.2	15.5	19.6	9.3	11.3
85-89	6.8	12.0	11.1	28.5	16.7	12.6	1.9	5.6	8.8	10.2	21.5	7.1
90-94	6.6	5.6	16.6	9.4	7.4	8.9	—	1.4	5.2	16.9	12.9	4.6
95-99	3.0	5.8	6.3	11.3	5.6	5.7	—	0.7	2.2	3.9	6.9	1.7
100-104	—	2.4	4.5	8.9	9.3	3.5	—	—	1.5	1.3	6.9	1.1
105-109	—	1.5	2.3	1.2	3.7	1.3	—	—	—	—	1.7	0.1
110 or more	—	1.7	2.3	1.5	1.9	1.3	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(mmHg)</i>												
Mean	74	79	84	86	85	80	67	70	75	80	82	72
10th centile	60	66	70	72	75	65	58	59	63	66	63	60
Median	74	79	82	87	83	80	68	70	74	80	85	73
90th centile	88	95	99	100	100	95	78	84	88	93	99	87
Standard error of mean	1.2	1.1	0.9	1.1	1.2	0.5	1.1	0.9	0.7	1.0	1.6	0.5
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>490</b>

(a) The average of two readings taken 5 minutes apart.

Table 4. Blood pressure: related statistics

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>When blood pressure last measured (a)</b>												
In the last three months	22.6	26.7	32.0	40.2	50.3	30.1	40.1	33.8	39.3	45.3	45.5	39.2
In the last six months	16.0	17.1	18.6	25.8	16.7	18.1	27.0	14.3	19.6	17.0	25.5	20.4
In the last year	22.3	19.0	24.2	13.3	20.2	20.5	23.5	25.1	24.5	23.5	13.4	23.3
In the last three years	19.4	18.4	15.9	12.5	9.2	16.7	4.7	13.6	10.3	10.3	11.0	9.7
More than three years ago	5.0	10.0	7.5	5.8	3.7	7.0	0.9	9.4	5.0	1.3	4.7	4.6
Never measured	9.2	0.8	—	1.2	—	3.1	1.9	—	—	—	—	0.6
Don't know	5.4	8.1	1.9	1.2	—	4.4	1.9	3.8	1.3	2.6	—	2.2
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high blood pressure (b)</b>	<b>7.7</b>	<b>14.5</b>	<b>22.0</b>	<b>29.6</b>	<b>28.0</b>	<b>17.0</b>	<b>11.7</b>	<b>8.7</b>	<b>14.7</b>	<b>31.0</b>	<b>39.6</b>	<b>16.1</b>
<b>On blood pressure tablets (c)</b>	<b>—</b>	<b>2.4</b>	<b>9.2</b>	<b>18.3</b>	<b>16.9</b>	<b>6.2</b>	<b>—</b>	<b>0.7</b>	<b>3.8</b>	<b>14.2</b>	<b>30.4</b>	<b>5.2</b>
<b>Hypertensives</b>												
Controlled (d)	—	—	4.0	9.7	7.5	2.6	—	0.7	1.5	10.2	21.1	3.5
Treated, uncontrolled (e)	—	2.4	5.2	8.6	9.4	3.6	—	—	2.3	4.0	9.3	1.7
Untreated (f)	3.0	9.0	10.8	15.9	20.2	9.3	—	0.7	1.4	5.2	17.3	2.6
<b>Total hypertensives</b>	<b>3.0</b>	<b>11.5</b>	<b>20.0</b>	<b>34.2</b>	<b>37.1</b>	<b>15.5</b>	<b>—</b>	<b>1.4</b>	<b>5.2</b>	<b>19.4</b>	<b>47.6</b>	<b>7.8</b>
<b>Normotensives (g)</b>	<b>97.0</b>	<b>88.5</b>	<b>80.0</b>	<b>65.8</b>	<b>62.9</b>	<b>84.5</b>	<b>100.0</b>	<b>98.6</b>	<b>94.8</b>	<b>80.6</b>	<b>52.4</b>	<b>92.2</b>
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>490</b>

(a) Q9. When did you last have your blood pressure measured?

(b) Q11. Have you ever been told that you have high blood pressure?

(c) Q12. Are you on tablets for blood pressure?

(d) On tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

(e) On tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(f) Not on tablets for blood pressure, SBP ≥ 160 mmHg and/or DBP ≥ 95 mmHg.

(g) Not on tablets for blood pressure, SBP < 160 mmHg and DBP < 95 mmHg.

Note: Classifications of hypertension are those used in the WHO MONICA Project.

**Table 5. Plasma cholesterol and related statistics**

	Men						Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages	
	(Per cent)												
<b>Plasma cholesterol (mmol/L) (a) (b)</b>													
Less than 3.00	—	—	—	—	—	—	—	—	1.0	—	—	—	0.3
3.00-3.99	15.6	9.0	2.5	3.0	2.3	8.3	21.9	11.3	6.0	3.1	—	—	11.4
4.00-4.99	46.3	25.4	20.9	7.6	22.0	28.3	44.9	36.9	33.0	12.7	8.7	—	33.3
5.00-5.99	29.5	43.0	38.0	40.3	28.2	36.4	20.9	34.8	40.0	35.8	33.6	—	31.9
6.00-6.99	6.4	16.2	26.8	36.8	32.5	19.3	8.7	13.4	14.3	31.2	44.3	—	16.8
7.00-7.99	2.0	5.6	11.9	9.2	15.0	7.0	1.7	2.5	5.9	12.5	6.7	—	4.5
8.00-8.99	—	0.9	—	3.2	—	0.6	—	—	0.9	3.1	4.7	—	0.9
9.00 or more	—	—	—	—	—	—	1.7	—	—	1.6	2.0	—	0.9
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(mmol/L)												
Mean	4.84	5.34	5.74	5.96	5.86	5.39	4.74	5.01	5.29	6.02	6.20	—	5.21
10th centile	3.85	4.00	4.40	4.83	4.70	4.05	3.60	3.97	4.12	4.70	5.00	—	3.91
Median	4.83	5.34	5.76	5.98	5.92	5.40	4.50	5.00	5.25	5.94	6.15	—	5.34
90th centile	5.82	6.50	7.20	7.14	7.10	6.80	6.20	6.17	6.55	7.40	7.22	—	6.70
Standard error of mean	0.10	0.10	0.08	0.10	0.13	0.05	0.23	0.11	0.07	0.11	0.13	—	0.06
	(Per cent)												
Cholesterol $\geq$ 5.5 mmol/L	20.3	42.3	61.1	67.5	56.4	43.9	19.2	27.2	41.4	70.3	77.9	—	37.1
Cholesterol $\geq$ 6.5 mmol/L	3.1	11.2	23.3	25.2	30.3	14.5	7.0	8.2	11.0	32.9	34.2	—	13.4
<b>Number of cases</b>	<b>94</b>	<b>112</b>	<b>124</b>	<b>68</b>	<b>48</b>	<b>446</b>	<b>53</b>	<b>92</b>	<b>123</b>	<b>69</b>	<b>48</b>	<b>—</b>	<b>385</b>
	(Per cent)												
<b>When blood cholesterol last measured (c)</b>													
In the last three months	5.3	6.6	9.2	11.6	9.4	7.6	5.9	7.3	8.0	14.2	15.7	—	8.5
In the last six months	5.9	7.3	12.4	17.3	13.1	9.7	5.9	5.2	8.0	10.5	12.7	—	7.3
In the last year	9.8	16.0	20.2	22.4	22.9	16.3	10.8	13.6	24.6	29.8	19.8	—	17.5
In the last three years	4.5	17.5	22.7	17.3	7.6	14.0	3.8	14.7	14.3	14.1	18.1	—	11.6
More than three years ago	3.9	4.9	8.7	8.9	19.0	7.0	3.1	1.4	2.9	7.9	8.6	—	3.6
Never measured	61.7	41.2	21.1	13.2	18.6	37.8	62.0	51.9	37.3	20.9	20.3	—	45.5
Don't know	9.0	6.6	5.7	9.4	9.4	7.7	8.7	5.9	4.9	2.7	4.7	—	6.0
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Told of high cholesterol (d)</b>	<b>4.8</b>	<b>9.2</b>	<b>20.6</b>	<b>33.2</b>	<b>30.1</b>	<b>14.9</b>	<b>4.7</b>	<b>7.0</b>	<b>16.1</b>	<b>24.8</b>	<b>25.6</b>	<b>—</b>	<b>11.9</b>
<b>Treatment to lower blood fat (e)</b>	<b>—</b>	<b>—</b>	<b>3.5</b>	<b>3.1</b>	<b>5.6</b>	<b>1.6</b>	<b>—</b>	<b>—</b>	<b>3.9</b>	<b>—</b>	<b>—</b>	<b>—</b>	<b>0.4</b>
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>—</b>	<b>490</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q10. When did you last have your blood cholesterol measured?

(d) Q11. Have you ever been told that you have high cholesterol?

(e) Q13. Are you having treatment to lower your blood fat?



Table 6. HDL cholesterol and plasma triglycerides

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
(Per cent)												
<b>HDL cholesterol (mmol/L) (a) (b)</b>												
Less than 0.50	—	—	—	1.3	—	0.2	—	—	—	—	—	—
0.50-0.99	20.5	22.5	23.5	14.6	16.6	20.7	7.5	5.9	4.7	2.9	4.2	5.7
1.00-1.49	61.4	62.4	60.7	66.5	64.7	62.4	46.9	47.2	45.9	47.3	48.6	47.0
1.50-1.99	14.1	13.3	11.4	14.6	10.5	13.1	31.5	32.7	36.3	32.7	34.9	33.3
2.00-2.49	3.0	1.8	2.2	—	4.1	2.2	8.2	7.8	7.3	8.7	4.2	7.6
2.50 or more	—	—	—	1.3	—	0.2	—	1.4	1.6	1.4	1.9	1.1
Not stated	1.0	—	2.2	1.6	4.1	1.3	5.9	4.9	4.1	7.0	6.1	5.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmol/L)												
Mean	1.21	1.20	1.17	1.25	1.21	1.20	1.44	1.47	1.51	1.54	1.49	1.48
10th centile	0.90	0.90	0.90	0.90	0.91	0.90	1.00	1.09	1.10	1.14	1.10	1.05
Median	1.16	1.15	1.13	1.26	1.14	1.16	1.41	1.41	1.45	1.45	1.45	1.43
90th centile	1.58	1.60	1.50	1.55	1.59	1.52	1.90	1.94	1.99	2.00	1.83	1.94
Standard error of mean	0.04	0.03	0.02	0.04	0.04	0.01	0.07	0.04	0.03	0.04	0.04	0.02
(Per cent)												
<b>Plasma triglyceride (mmol/L) (b)</b>												
Less than 0.50	6.4	1.8	1.0	1.3	—	2.8	6.6	6.4	2.5	1.4	—	4.5
0.50-0.99	46.0	41.1	26.0	24.5	20.3	35.6	66.2	58.1	61.3	37.0	29.7	56.4
1.00-1.49	29.9	31.1	31.8	26.6	40.0	31.0	14.8	26.2	22.6	28.6	33.5	22.9
1.50-1.99	9.4	12.4	15.5	20.0	25.0	14.1	3.3	2.0	4.8	21.5	14.1	6.2
2.00-2.49	4.4	5.4	14.3	7.7	4.1	7.2	1.6	1.4	1.6	1.5	10.4	2.3
2.50-2.99	1.0	5.5	4.1	9.0	2.2	4.0	—	1.0	0.8	1.5	1.9	0.8
3.00-4.99	2.0	1.8	3.6	7.9	4.1	3.2	1.6	—	2.4	1.5	4.2	1.5
5.00 or more	—	0.8	1.4	1.3	—	0.7	—	—	—	—	—	—
Not stated	1.0	—	2.2	1.6	4.1	1.3	5.9	4.9	4.1	7.0	6.1	5.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
(mmol/L)												
Mean	1.07	1.30	1.54	1.79	1.41	1.35	0.84	0.88	1.02	1.20	1.39	0.98
10th centile	0.50	0.62	0.65	0.60	0.70	0.60	0.50	0.54	0.57	0.70	0.65	0.54
Median	0.92	1.08	1.35	1.42	1.27	1.19	0.74	0.77	0.85	1.09	1.30	0.90
90th centile	1.73	2.24	2.46	2.94	2.06	2.23	1.30	1.30	1.60	1.90	2.36	1.55
Standard error of mean	0.07	0.08	0.08	0.21	0.08	0.05	0.09	0.05	0.05	0.05	0.08	0.03
<b>Number of cases</b>	<b>94</b>	<b>113</b>	<b>124</b>	<b>68</b>	<b>48</b>	<b>447</b>	<b>53</b>	<b>92</b>	<b>124</b>	<b>70</b>	<b>49</b>	<b>388</b>
(Per cent)												
<b>Told of high triglycerides (c)</b>	<b>2.1</b>	<b>6.4</b>	<b>12.2</b>	<b>18.0</b>	<b>11.2</b>	<b>8.1</b>	<b>1.9</b>	<b>3.1</b>	<b>2.0</b>	<b>7.8</b>	<b>11.6</b>	<b>3.8</b>
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>490</b>

(a) Excludes women taking the oral contraceptive pill.

(b) Fasted (nothing to eat or drink in the 12 hours before testing apart from water, black tea or black coffee).

(c) Q11. Have you ever been told that you have high triglycerides?

**Table 7. Smoking behaviour and alcohol consumption**

	Men					Women						
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<i>Smoking behaviour</i>												
<i>(Per cent)</i>												
<b>Smoking status (a)</b>												
Cigarette smoker (b) (c)	29.5	22.9	20.4	20.7	18.5	23.7	28.9	14.3	15.8	10.3	9.3	18.0
Cigar and/or pipe only	—	1.7	—	3.1	3.8	1.1	—	—	—	—	—	—
Ex-smokers	9.5	28.8	34.8	41.5	48.0	27.3	17.4	14.7	23.9	19.5	32.5	19.5
Never smoked regularly	61.0	46.6	44.7	34.7	29.7	47.8	53.8	71.0	60.3	70.2	58.2	62.4
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>490</b>
<b>Manufactured cigarettes a day (d)</b>												
<i>(Per cent)</i>												
1-10	39.5	14.4	8.1	14.9	44.3	24.5	32.5	22.0	52.2	24.6	18.6	32.6
11-20	44.4	44.1	41.9	33.9	10.8	40.9	64.2	24.3	37.7	50.7	81.4	49.9
21-40	16.1	41.5	46.6	51.2	44.8	34.0	3.3	53.8	10.0	24.6	—	17.5
41 or more	—	—	3.4	—	—	0.6	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<i>(Cigarettes)</i>												
Mean	15	19	25	22	18	19	12	22	14	16	16	15
Standard error of mean	1.4	1.5	2.3	2.6	3.8	1.0	1.3	2.2	2.4	2.7	3.3	1.1
<b>Number of cases</b>	<b>32</b>	<b>27</b>	<b>26</b>	<b>15</b>	<b>9</b>	<b>109</b>	<b>27</b>	<b>18</b>	<b>21</b>	<b>8</b>	<b>5</b>	<b>79</b>
<b>Alcohol consumption</b>												
<i>(Per cent)</i>												
<b>Usual frequency (e)</b>												
I don't drink alcohol	11.3	8.3	9.9	9.7	12.9	10.1	20.2	15.6	26.6	23.3	31.6	21.6
Less than once a week	30.0	21.3	18.4	9.0	11.0	21.0	38.5	36.3	23.8	28.6	22.0	32.1
On 1 or 2 days a week	40.2	26.3	28.8	18.4	15.0	29.2	30.8	22.7	16.2	16.9	14.5	22.3
On 3 or 4 days a week	13.7	19.9	15.5	18.3	20.3	16.9	7.5	13.9	13.6	15.6	9.3	11.8
On 5 or 6 days a week	4.8	12.8	11.1	16.8	9.4	10.2	3.1	7.0	12.5	6.4	9.3	7.1
Every day	—	11.5	16.3	27.7	31.3	12.6	—	4.5	7.3	9.2	13.4	5.1
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Usual consumption (f)</b>												
I don't drink alcohol	11.3	8.3	9.9	9.7	12.9	10.1	20.2	15.6	26.6	23.3	31.6	21.6
1 or 2 drinks	32.1	44.7	50.2	47.0	48.2	42.7	35.2	59.7	55.9	65.0	55.0	51.9
3 or 4 drinks	32.2	33.1	27.2	29.2	24.0	30.4	34.0	23.3	16.8	10.4	13.4	22.7
5 to 8 drinks	18.8	13.1	11.1	12.8	13.0	14.3	9.6	1.4	0.7	1.3	—	3.5
9 to 12 drinks	3.9	0.8	1.6	1.2	1.9	2.0	0.9	—	—	—	—	0.3
13 to 20 drinks	1.8	—	—	—	—	0.5	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Alcohol index</b>												
Intermediate risk or more (g)	2.7	3.4	4.5	8.6	9.3	4.5	0.9	4.9	3.5	6.5	8.2	3.9
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>490</b>

(a) Based on Q26, Q28 and Q30.

(b) May also smoke cigars and/or a pipe.

(c) Includes persons who smoke hand-rolled cigarettes.

(d) Current smokers of manufactured cigarettes.

(e) Q33. How often do you usually drink alcohol?

(f) Q34. On a day when you drink alcohol, how many drinks do you usually have?

(g) Men: average daily consumption of at least 5 drinks or occasional excess.

Women: average daily consumption of at least 4 drinks or at least 9 drinks in any one day.

} See Appendix F.

Table 8. Height, weight and weight for height

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Height (cm) (b)</b>	(Per cent)											
Under 150	—	—	—	—	—	—	4.2	1.1	4.3	1.3	—	2.6
150-159	3.2	—	—	—	—	1.0	19.6	24.1	27.1	32.5	55.4	27.1
160-169	15.1	9.8	12.3	24.8	33.1	15.5	61.4	61.7	59.1	55.8	42.9	58.8
170-179	53.3	57.9	59.9	51.1	50.1	55.5	13.8	13.1	9.5	10.4	1.7	11.3
180-189	26.5	30.1	27.8	24.1	16.8	26.8	—	—	—	—	—	—
190+	1.8	2.3	—	—	—	1.2	—	—	—	—	—	—
Not stated	—	—	—	—	—	—	1.0	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	175.5	176.7	175.7	175.0	173.5	175.7	163.5	162.7	162.1	161.0	159.0	162.3
10th centile	167.0	170.0	169.0	166.0	167.0	168.0	154.0	154.0	155.0	153.0	153.0	154.0
Median	176.0	176.0	176.0	176.0	173.0	176.0	165.0	163.0	162.0	161.0	159.0	163.0
90th centile	184.0	185.0	184.0	182.0	182.0	184.0	170.0	170.0	169.0	170.0	165.0	170.0
Standard error of mean	0.78	0.56	0.47	0.69	0.73	0.29	0.80	0.58	0.44	0.59	0.58	0.28
<b>Weight (kg) (c)</b>	(Per cent)											
Less than 50	—	—	—	—	—	—	7.0	7.4	5.7	5.3	1.7	6.2
50-59	4.8	3.0	—	1.2	1.9	2.6	38.2	30.9	33.5	19.5	23.9	31.7
60-69	32.1	15.6	8.8	11.4	12.9	18.3	34.4	35.5	36.1	42.9	34.7	36.1
70-79	35.2	34.9	39.0	37.0	55.7	37.7	13.6	11.3	16.0	19.4	15.7	14.3
80-89	19.9	27.8	32.7	21.7	11.2	24.5	3.9	8.9	4.4	10.3	18.1	7.4
90-99	6.3	11.5	14.6	17.5	11.0	11.3	1.9	3.2	2.9	1.3	4.1	2.6
100-109	0.9	3.9	2.3	5.8	7.3	3.1	—	1.4	0.7	—	1.7	0.7
110 or more	0.9	2.4	2.0	4.3	—	1.9	—	1.4	0.8	1.3	—	0.7
Not stated	—	0.8	0.7	1.2	—	0.5	1.0	—	—	—	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(kg)											
Mean	75.1	80.1	82.3	83.1	78.6	79.3	62.7	65.5	64.1	68.9	69.1	65.1
10th centile	63.3	65.8	70.0	68.1	66.7	65.1	52.2	50.5	53.3	53.9	54.5	52.0
Median	75.9	79.6	81.0	79.7	75.1	78.5	61.2	63.0	62.4	66.8	66.6	63.9
90th centile	88.6	96.5	96.4	100.9	94.2	95.7	73.2	85.2	77.0	82.0	83.3	81.7
Standard error of mean	1.24	1.23	1.03	1.36	1.27	0.57	1.26	1.30	0.85	1.91	1.49	0.60
<b>Weight for height (d)</b>	(Per cent)											
Underweight	7.4	3.0	0.7	—	1.9	3.4	16.7	14.9	10.9	5.2	3.5	12.5
Acceptable weight	56.3	49.0	38.4	41.0	40.8	47.3	59.8	47.2	56.4	45.5	39.5	52.0
Overweight	31.8	38.7	47.7	41.4	46.4	39.5	16.7	24.5	23.2	36.3	29.1	23.7
Obese	4.5	8.5	12.6	16.4	10.9	9.3	5.8	13.5	9.4	13.0	28.0	11.5
Not stated	—	0.8	0.7	1.2	—	0.5	1.0	—	—	—	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(kg/m <sup>2</sup> )											
Mean	24.0	25.3	26.3	26.7	25.7	25.3	23.1	24.3	24.0	26.1	26.9	24.3
10th centile	20.4	21.1	21.9	23.0	22.5	21.1	19.4	19.5	19.9	21.5	21.5	19.5
Median	23.8	24.9	25.9	25.4	25.3	25.1	22.6	22.7	23.3	24.9	25.6	23.7
90th centile	27.6	29.7	30.2	33.2	30.0	29.7	27.5	31.3	29.0	31.7	33.2	30.9
Standard error of mean	0.34	0.35	0.33	0.38	0.33	0.17	0.47	0.44	0.33	0.66	0.59	0.22
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>91</b>	<b>127</b>	<b>136</b>	<b>77</b>	<b>52</b>	<b>483</b>

(a) Excludes pregnant women.  
 (b) Height in stockings feet.

(c) Weight in stockings feet and light street clothing.  
 (d) Based on body mass index (Wt-1/Ht<sup>2</sup>). See Appendix E.

**Table 9. Waist circumference, hip circumference and waist to hip ratio**

	Men						Women (a)					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
<b>Waist circumference (cm) (b)</b>	(Per cent)											
Less than 60	—	—	—	—	—	—	1.9	1.8	0.8	1.3	—	1.4
60-69	3.9	0.8	—	—	—	1.4	39.0	33.7	33.3	12.9	9.3	30.7
70-79	32.4	12.8	5.2	3.6	1.8	15.1	40.2	36.2	41.1	39.0	30.2	38.3
80-89	46.8	45.5	32.8	27.7	27.7	39.6	14.0	19.5	13.8	28.6	28.5	18.4
90-99	14.3	30.1	44.5	42.7	42.7	31.0	2.9	6.0	8.8	14.2	18.7	7.7
100-109	1.8	7.7	12.2	13.5	22.2	8.7	1.0	2.1	2.2	2.6	11.6	2.7
110 or more	0.9	3.2	5.3	12.5	5.5	4.3	—	0.7	—	1.3	1.7	0.5
Not stated	—	—	—	—	—	—	1.0	—	—	—	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	82.4	88.4	91.9	95.2	94.2	88.6	72.2	75.2	75.0	79.7	84.7	75.6
10th centile	73.0	78.0	80.5	84.5	84.0	76.0	63.0	64.5	65.0	67.5	71.0	64.0
Median	82.0	87.0	91.5	93.5	92.0	89.0	72.0	73.0	73.0	79.0	83.5	74.5
90th centile	94.0	100.0	104.0	110.5	106.0	101.5	82.0	89.0	90.0	94.0	101.0	90.0
Standard error of mean	0.95	0.94	0.73	1.05	1.01	0.47	1.14	0.95	0.73	1.05	1.45	0.48
<b>Hip circumference (cm) (b)</b>	(Per cent)											
less than 85	—	—	—	—	—	—	3.1	1.8	0.8	2.6	—	1.9
85-89	3.2	1.5	—	—	—	1.4	10.2	8.2	5.8	1.3	—	6.8
90-94	25.0	11.7	5.7	5.1	9.3	13.4	24.7	16.0	15.4	9.2	14.0	17.5
95-99	25.9	36.1	25.8	21.2	12.9	27.2	23.7	28.7	27.5	20.9	20.3	25.4
100-104	28.8	28.8	32.8	36.3	33.6	31.0	16.9	18.1	23.5	31.0	19.6	20.5
105-109	15.2	13.5	20.8	18.4	27.6	17.3	12.7	10.6	16.1	20.6	16.4	14.0
110-114	—	5.3	9.0	10.4	13.0	5.7	2.9	5.3	4.3	7.8	11.6	5.2
115-119	0.9	2.4	3.6	5.8	1.8	2.6	3.9	6.7	3.0	3.8	9.9	5.0
120 or more	0.9	0.8	2.3	2.7	1.8	1.5	1.0	4.6	3.7	2.6	8.2	3.4
Not stated	—	—	—	—	—	—	1.0	—	—	—	—	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(cm)											
Mean	98.7	100.5	103.2	103.8	103.5	101.2	98.1	100.7	100.8	102.2	107.2	100.7
10th centile	91.0	94.0	95.5	97.0	97.0	93.0	89.0	89.5	90.5	92.5	94.0	90.0
Median	99.0	100.0	103.0	103.0	102.8	101.5	98.0	98.5	99.5	102.0	102.0	100.0
90th centile	106.0	108.5	112.0	113.0	111.5	109.0	109.0	116.0	109.5	111.5	116.0	112.0
Standard error of mean	0.69	0.58	0.54	0.71	0.69	0.30	1.06	1.01	0.77	0.79	2.62	0.51
<b>Waist to hip ratio</b>	(Per cent)											
Less than 0.699	—	—	—	—	—	—	25.8	16.3	19.3	13.0	2.4	18.2
0.700-0.799	21.5	5.8	4.9	1.2	—	9.3	60.1	71.2	64.7	52.0	45.2	62.1
0.800-0.899	71.9	61.9	55.6	38.8	48.0	59.0	13.1	11.7	15.3	31.1	44.8	17.9
0.900-0.999	7.4	28.3	33.7	54.6	46.5	27.8	—	0.7	—	3.9	5.8	1.1
1.000 or more	1.2	2.4	4.0	5.5	5.6	3.0	—	—	—	—	—	—
Not stated	—	1.5	1.9	—	—	0.8	1.0	—	0.7	—	1.7	0.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
	(Waist/Hip)											
Mean	0.833	0.877	0.890	0.916	0.909	0.874	0.736	0.747	0.744	0.778	0.799	0.751
10th centile	0.764	0.813	0.816	0.857	0.853	0.800	0.673	0.689	0.683	0.688	0.721	0.683
Median	0.830	0.872	0.890	0.916	0.902	0.879	0.729	0.741	0.732	0.773	0.801	0.749
90th centile	0.896	0.944	0.975	0.980	0.976	0.953	0.827	0.809	0.819	0.870	0.883	0.839
Standard error of mean	0.006	0.005	0.005	0.005	0.006	0.003	0.008	0.005	0.004	0.006	0.010	0.003
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>91</b>	<b>127</b>	<b>136</b>	<b>77</b>	<b>52</b>	<b>483</b>

(a) Excludes pregnant women.

(b) The average of two measurements.

Table 10. Dietary behaviour and exercise during leisure time

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Eat fat on meat (a)</b>												
Usually	17.9	19.3	15.0	21.0	7.4	17.3	3.8	10.7	7.9	6.5	5.2	7.1
Sometimes	34.5	38.1	37.4	25.0	18.8	33.8	31.5	31.9	29.0	22.3	23.7	29.3
Rarely or never	47.6	42.6	47.6	54.0	73.8	49.0	64.7	57.4	63.1	71.2	71.1	63.6
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Add salt to food (b)</b>												
Rarely or never	50.8	63.1	57.1	51.5	49.0	55.6	67.1	65.2	60.8	60.7	61.2	63.9
Sometimes	39.5	26.5	28.5	19.6	32.1	30.4	22.3	25.2	26.4	30.2	31.9	25.7
Almost always or always	9.7	10.4	14.4	28.9	19.0	14.0	10.7	9.6	12.8	9.2	6.9	10.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Exercise during leisure time (c)</b>												
<b>Vigorous exercise (d)</b>												
Group 1 (e)	32.7	18.4	15.3	2.7	9.5	19.4	14.5	7.8	9.7	3.9	1.7	9.2
Group 2 (f)	38.5	32.2	28.3	16.1	7.6	29.4	30.1	23.4	17.8	14.5	6.9	21.7
<b>Less vigorous exercise (g)</b>	46.6	47.5	38.1	30.1	28.4	41.6	43.4	34.0	32.9	28.9	10.4	33.9
Walking	45.5	57.7	57.2	59.2	58.4	54.2	65.6	63.7	64.2	66.0	51.5	63.6
No exercise of any kind	13.3	15.2	22.0	32.6	33.9	19.7	17.8	26.2	26.2	22.3	43.3	24.7
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>490</b>

- (a) Q37. How often do you eat the fat on meat?
- (b) Q35. Do you add salt to your food after it is cooked?
- (c) Exercise for recreation, sport or health fitness purposes in the past 2 weeks.
- (d) Exercise which made you breathe harder or puff and pant.
- (e) Average of 3 or more sessions of vigorous exercise per week and 20 minutes or more per session.
- (f) Average of less than 3 sessions of vigorous exercise per week or less than 20 minutes per session.
- (g) Exercise which did not make you breathe harder or puff and pant.

Note: Respondents in the exercise table may be counted in more than one category.

**Table 11. Multiple major risk factors (a)**

	Men						Women					
	20-29	30-39	40-49	50-59	60-69	All ages	20-29	30-39	40-49	50-59	60-69	All ages
	(Per cent)											
<b>Risk factors present (b)</b>												
No risk factors	66.6	60.9	54.9	48.9	42.6	58.4	67.4	80.5	72.6	57.0	48.9	69.6
One factor	30.7	32.7	32.6	37.1	44.5	33.5	31.7	17.1	24.6	39.2	43.5	27.7
Two factors	2.7	6.4	11.2	12.5	11.1	7.4	0.9	2.4	2.9	2.5	5.8	2.4
Three factors	—	—	1.3	1.5	1.9	0.6	—	—	—	1.3	1.7	0.3
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Risk factors present (c)</b>												
No risk factors	67.8	66.4	63.0	61.7	49.9	64.2	67.4	81.2	75.6	59.7	54.1	71.2
One factor	31.3	29.1	29.6	25.5	37.2	30.1	31.7	16.4	22.2	36.5	38.4	26.3
Two factors	0.9	4.5	7.3	12.8	11.1	5.6	0.9	2.4	2.2	3.8	7.5	2.5
Three factors	—	—	—	—	1.9	0.1	—	—	—	—	—	—
<b>Total</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>	<b>100.0</b>
<b>Number of cases</b>	<b>106</b>	<b>125</b>	<b>133</b>	<b>73</b>	<b>54</b>	<b>491</b>	<b>94</b>	<b>129</b>	<b>138</b>	<b>77</b>	<b>52</b>	<b>490</b>

(a) Risk factors were considered present if participants were smokers, had raised blood pressure or raised plasma cholesterol (whether fasted or not). Prevalence rates of zero, one, any two, or all three risk factors were determined, based on the definitions given below.

(b) Definition 1 (used in previous RFPS reports):

    Raised blood pressure: diastolic blood pressure  $\geq$  95 mmHg.

    Raised plasma cholesterol: plasma cholesterol  $\geq$  6.5 mmol/L.

    Smoking: smoking one/or more manufactured and/or hand-rolled cigarettes daily (cigar and/or pipe smoking is not included).

(c) Definition 2 (used in the WHO MONICA project):

    Hypertension: systolic blood pressure  $\geq$  160 mmHg and/or diastolic blood pressure  $\geq$  95 mmHg and/or on tablets for blood pressure.

    Raised plasma cholesterol: plasma cholesterol  $\geq$  6.5 mmol/L.

    Smoking: regular cigarette, cigar and/or pipe smokers.

## Mean and median

The mean and median are both measures of central tendency. The mean is often called the average or arithmetic mean. The median is the middle value in a set of ranked measurements. Half the values are below the median value and half above. Unlike the mean, the median is not affected by extreme observations.

## Standard error

The standard error is used to provide a measure of confidence in an estimate. Standard errors for estimates of mean values are shown in the tables.

For a proportion (p) of a sample of n cases the standard error may be estimated as:

$$se(p) = \sqrt{p(1-p)/n}$$

The standard error of the difference between two proportions or means (a and b) for different subgroups of the sample may be estimated as:

$$se(a-b) = \sqrt{[se(a)]^2 + [se(b)]^2}$$

## 95% confidence interval

The estimates of mean in this report are derived from a sample survey and are therefore subject to sampling error. There are 95 chances in 100 that the true mean lies within two standard errors of the estimated mean. The size of the interval provides a measure of confidence in the estimate.

## 10th and 90th centiles

The 10th centile is exceeded by 90 per cent of values, the 90th centile by 10 per cent of values. It follows that 80 per cent of values fall between the 10th and 90th centiles.

## Weights

In this report, all the above estimates are are weighted estimates. That is, weights have been applied to each observation such that the estimates reflect the demographic distribution of each city or, in the case of age standardised estimates, a standard population.

## Cases

This is the number of observations on which the statistics in the table are based.

## Not stated

Tables include a 'not stated' category, where applicable, to give consistency between tables in the total number of cases.

## Tables showing percentages

The symbol '—' in a table means that no person in the sample responded in that particular cell.

0.0 in percentage tables means less than 0.05 but not zero.

Where percentages have been rounded they may not always add to exactly 100.0%.

# Explanatory notes

## Symbols

$\geq$	greater than or equal to
$\leq$	less than or equal to

## Units

cm	centimetres
kg	kilograms
m	metres
mmHg	millimetres of mercury
mmol/L	millimoles per litre

## WHO MONICA Project

The WHO MONICA Project is a multicentre international collaborative project coordinated by the World Health Organization. Its objective is to measure trends in cardiovascular mortality and morbidity and to assess the degree to which these trends are related to changes in risk factor levels and/or medical care. Thirty-nine centres from 26 countries of Europe, North America, and the Western Pacific are collaborating in this project.<sup>1</sup> Australian collaborating centres are at Perth and Newcastle.

1. WHO MONICA Project/Böthig S. WHO MONICA Project: Objectives and design *International Journal of Epidemiology* 1989;18(Suppl.1):S29-S37.



## Administration of the study

The study is administered by the Risk Factor Prevalence Study (RFPS) Management Committee. This Committee is chaired by the Director of the National Heart Foundation and also comprises the RFPS Director, Regional Study Directors and representatives from the Australian Institute of Health and the Commonwealth Department of Community Services and Health.

Members of the Committee for the 1989 Risk Factor Prevalence Survey were:

Chairman	Dr R.L.Hodge Director, National Heart Foundation
Study director	Dr P.Magnus Deputy Director — Medical, National Heart Foundation
Study statistician	Mr S.A. Bennett Senior Research Fellow, Australian Institute of Health
Operations managers	Mr J.Berzins Australian Institute of Health Ms E.Hall National Office, National Heart Foundation Mrs A-M. Waters Statistical Services Section Department of Community Services and Health

### Local study directors:

Sydney North	Dr R. Edwards Royal North Shore Hospital, Sydney
Sydney South	A/Professor L. Simons St. Vincent's Hospital, Sydney
Melbourne	Dr S. Gurlay and Professor J. McNeil Monash University, Melbourne
Brisbane	Dr R. Swannell Department of Health, Brisbane
Adelaide	Dr P. Ryan University of Adelaide, Adelaide
Perth	Dr K. Jamrozik University of Western Australia, Perth
Hobart	Dr J. Curran Department of Health, Hobart
Darwin	Dr A. Walker Royal Darwin Hospital, Darwin
Canberra	Dr S. O'Connor Cardiologist, Canberra

## Appendix A

The survey was co-ordinated by the National Office of the National Heart Foundation. The Statistical Services Section of the Department of Community Services and Health were responsible for survey development and sample selection. A special data processing unit within the Australian Institute of Health directed the data collection and was responsible for data processing and preliminary analysis. Ethical clearance for the survey was provided by the Australian Institute of Health Interim Ethics Committee.

IN CONFIDENCE



NATIONAL HEART FOUNDATION RISK FACTOR STUDY 1989

Telephone number(s) where you may be contacted. Home -----

Work -----

**CONSENT AND FORWARDING OF RESULTS**

I consent to undergo the tests performed at the clinic and I understand that the results of my assessment will be given to me and/or my doctor if I wish.

I further understand that information and blood specimens collected in the course of the study will be used for research purposes, the results of which will be published in scientific journals or reports in such a way that individual participants cannot be identified.

I also understand that my own answers in this questionnaire and the results of my tests will not be released to anyone, even to my own doctor, without my specific permission.

Signature ----- Date \_\_\_\_ / \_\_\_\_ / 1989.

To whom would you like your results sent?  
(Please tick the appropriate box)

To no-one .....

To myself only .....

To my doctor only\* .....

To myself and my doctor\* .....

\*If you want your results sent to your doctor, please write the name and address below.

Dr -----

Address -----

Postcode -----

OFFICE USE ONLY

To be copied from page 12.

Weight \_\_\_\_\_kg

Height \_\_\_\_\_cm

Blood pressure:

Average systolic \_\_\_\_\_ mmHg

Average diastolic \_\_\_\_\_ mmHg

Total cholesterol \_\_\_\_\_mmol/l

H.D.L. cholesterol \_\_\_\_\_mmol/l

Triglycerides \_\_\_\_\_ mmol/l

Ferritin \_\_\_\_\_µg/l

Iron \_\_\_\_\_µmol/l

Transferrin \_\_\_\_\_µmol/l

## DIRECTIONS

- Please indicate your answer by ticking the appropriate box  or by writing your answer in the space provided.
- Please use BLOCK LETTERS.
- If you are uncertain about the answer to any of the questions leave them blank and ask the receptionist to help you when you have reached the end of the questionnaire.
- Please do not write in the far right hand column of each page (**Office use only**).

1. Date of birth: \_\_\_ / \_\_\_ / 19\_\_\_  
day mth year

2. Sex: Male.....  1  
 Female.....  2

3. Marital status:

- Never married.....  1  
 Now married.....  2  
 Separated but not divorced  3  
 Divorced.....  4  
 Widowed.....  5

4. How many children and full-time students are living with you in your care?

- None.....   
 Children 0-14 years ----- number  
 Full-time students 15-24 years ----- number

5. Living arrangements:

- Living with legal husband or wife.....  1  
 Living with partner as a couple (such as de facto marriage).....  2  
 Living with other person(s) (such as children, parents, flatmates)  3  
 Living alone.....  4

6. Where were you born? \_\_\_\_\_  
(Write State or Territory if born in Australia. Write country if born overseas.)

7. If you were not born in Australia, how many years have you lived in Australia? \_\_\_\_\_ years

Office use only

1					5

6					11

12					17

18

19				8	9
					24

25

26	27

28	29

30

31	32

33	34

# Appendix B

4

8. Please indicate the highest level of education you have completed.

- Never attended school .....  1
- Primary school .....  2
- Some high school .....  3
- Completed high school (Year 12 or equivalent) .....  4
- University, C.A.E. or other tertiary institution .....  5

9. When did you last have your blood pressure measured?

- In the last three months .....  1
- In the last six months .....  2
- In the last year .....  3
- In the last three years .....  4
- More than three years ago .....  5
- Never measured .....  6
- Don't know .....  7

10. When did you last have your blood cholesterol measured?

- In the last three months .....  1
- In the last six months .....  2
- In the last year .....  3
- In the last three years .....  4
- More than three years ago .....  5
- Never measured .....  6
- Don't know .....  7

11. Have you ever been told that you have any of the following?

- |                                                                                                     | No                         | Yes                        |                             |
|-----------------------------------------------------------------------------------------------------|----------------------------|----------------------------|-----------------------------|
| High blood pressure.....                                                                            | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 38 |
| Angina .....                                                                                        | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 39 |
| Heart attack (a "coronary", coronary occlusion,<br>coronary thrombosis, myocardial infarction)..... | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 40 |
| Stroke .....                                                                                        | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 41 |
| High cholesterol.....                                                                               | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 42 |
| High triglycerides.....                                                                             | <input type="checkbox"/> 1 | <input type="checkbox"/> 2 | <input type="checkbox"/> 43 |

12. Are you on tablets for blood pressure?

- |                            |                            |
|----------------------------|----------------------------|
| No                         | Yes                        |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |

44

13. Are you having treatment to lower your blood fat?

- |                            |                            |
|----------------------------|----------------------------|
| No                         | Yes                        |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |

45

14. Are you on tablets or other treatment for angina?

- |                            |                            |
|----------------------------|----------------------------|
| No                         | Yes                        |
| <input type="checkbox"/> 1 | <input type="checkbox"/> 2 |

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only

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36

37

15. Has a doctor or nurse ever told you that you had diabetes?

No  1      Yes  2

If yes, please state the year you were first told 19 \_\_\_\_  
Year

47

48    49

16. Has a doctor or nurse ever told you that you showed sugar in the urine?

No  1      Yes  2

If yes, please state the year you were first told 19 \_\_\_\_  
Year

50

51    52

17. Have you ever been given advice or treatment for diabetes or sugar trouble?

No  1      Yes  2

If yes, please state the year this advice or treatment was first given 19 \_\_\_\_  
Year

53

54    55

Was this Diet advice.....  1

Tablets .....  2

Insulin injections .....  3

Diet advice and tablets .....  4

Diet advice and injections .....  5

56

### QUESTIONS 18 TO 21 FOR WOMEN ONLY

18. Have you ever taken the oral contraceptive pill?

Yes.....  1

No .....  2    Go to Question 21.

57

19. For how long altogether have you taken the oral contraceptive pill?  
(Please estimate the total of all periods of use.)

Less than 6 months .....  1

Between 6 months and 2 years .....  2

Between 2 and 5 years .....  3

Between 5 and 10 years .....  4

Longer than 10 years.....  5

58

20. Are you now taking the oral contraceptive pill?

Yes.....  1

No .....  2

59

21. Are you now pregnant?

Yes.....  1

No .....  2

60

# Appendix B

6

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In Questions 22 to 25 we want to find out about the exercise you had during the PAST 2 WEEKS;

- For recreation, sport or health-fitness purposes,
  - As part of your tasks at work and around the house.
- Please distinguish between vigorous exercise which made you breathe harder or puff and pant, and less vigorous exercise.

## RECREATION, SPORT OR HEALTH-FITNESS

22. In the PAST 2 WEEKS, did you engage in vigorous exercise — exercise which made you breathe harder or puff and pant? (e.g. vigorous sports such as football, netball, tennis, squash, athletics; jogging or running; keep-fit exercises; vigorous swimming; etc.)

No .....  1  
Yes.....  2

If yes, how many sessions of vigorous exercise did you have over the 2 week period? \_\_\_\_\_

Please estimate the TOTAL TIME spent exercising vigorously during the PAST 2 WEEKS. \_\_\_\_\_ / \_\_\_\_\_  
hours minutes

23. In the PAST 2 WEEKS, did you engage in less vigorous exercise for recreation, sport or health-fitness purposes which did not make you breathe harder or puff and pant?

No .....  1  
Yes.....  2

If yes, how many sessions of less vigorous exercise did you have over the 2 week period? \_\_\_\_\_

24. In the PAST 2 WEEKS, did you walk for recreation or exercise?

No .....  1  
Yes.....  2

if yes, how many times? \_\_\_\_\_

## VIGOROUS TASKS AT WORK AND AROUND THE HOUSE (Paid or unpaid work)

25. In the PAST 2 WEEKS, did you engage in vigorous activity, apart from exercise, which made you breathe harder or puff and pant? (e.g. carrying loads, heavy gardening, chopping wood, labouring — at home, during employment or anywhere else.)

No .....  1  
Yes.....  2

If yes, how many sessions of these types of vigorous activity did you have over the 2 week period? \_\_\_\_\_

Please estimate the TOTAL TIME spent in these types of vigorous activity during the PAST 2 WEEKS.

\_\_\_\_\_ / \_\_\_\_\_  
hours minutes

61

62   63  
    67  
64

68

69 70

71

72 73

74

75 76

77 80





# Appendix B

8

**33. How often do you usually drink alcohol?**

- I don't drink alcohol.....  1 **Go to Question 35.**
- Less than once a week.....  2
- On 1 or 2 days a week.....  3
- On 3 or 4 days a week.....  4
- On 5 or 6 days a week.....  5
- Every day.....  6

Office use only

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**34. On a day when you drink alcohol, how many drinks do you usually have?**

- 1 or 2 drinks.....  1
- 3 or 4 drinks.....  2
- 5 to 8 drinks.....  3
- 9 to 12 drinks.....  4
- 13 to 20 drinks.....  5
- More than 20 drinks.....  6

116

**35. Do you add salt to your food after it is cooked?**

- Rarely or never.....  1
- Sometimes.....  2
- Almost always or always.....  3

117

**36. Which of the following best describes your usual way of eating?**  
(Please tick one box only.)

- No special diet.....  1
- Vegetarian.....  2
- Weight reduction diet.....  3
- Diabetic diet.....  4
- Fat modified diet to lower blood fat.....  5
- Other.....  6 Please specify \_\_\_\_\_

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**37. How often do you eat the fat on meat?**

- Usually.....  1
- Sometimes.....  2
- Rarely or never.....  3

119

**38. How much of the following dairy products do you usually have IN A WEEK?**

- Number in  
a week
- Full cream milk..... (litres)
  - Skim milk..... (litres)
  - Low fat milk..... (litres)
  - Yoghurt — plain or flavoured..... (small cartons)
  - Low fat yoghurt — plain or flavoured..... (small cartons)
  - Cream..... (tablespoons)
  - Ice-cream..... (scoops)

120   121  
 122   123  
 124   125  
 126   127  
 128   129  
 130   131  
 132   133

39. How tall are you without shoes?

Centimetres \_\_\_\_\_

or Feet / inches \_\_\_\_\_ / \_\_\_\_\_

Don't know.....  999

Office use only

--	--	--	--

134 136

40. How much do you weigh without clothes and shoes?

Kilograms \_\_\_\_\_

or Stone / pounds \_\_\_\_\_ / \_\_\_\_\_

Don't know.....  999

--	--	--	--

137 139

**Questions 41 to 46 ask about employment and income.**

**The answers to these questions play an important part in understanding the patterns of health in the Australian community.**

**For example, risk factors for heart disease are known to vary between different groups in the community.**

**Knowledge about these differences helps in providing the best health care.**

41. Do you have a full-time or part-time job of any kind?  
(Either for payment or profit, or unpaid work in a family business)

Yes.....  1

No.....  2 Go to Question 44.

--

140

42. In your main job, what is your occupation?

- Give full title.

For example, Civil Engineering Draftsman, Accounts Clerk, Fast Foods Cook, 1st Class Welder, Extruding Machine Operator, Coal Miner.

- Armed Services personnel state rank as well as occupation.
- Public Servants state official designation (e.g. ASO3) as well as occupation.

Occupation \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

43. What are the main tasks or duties that you usually perform in that occupation?

- Describe as fully as possible.

For example, preparing drawings for dam construction, recording and paying accounts, cooking hamburgers and chips, welding of high pressure steam pipes, operating plastic extruding machine, operating continuous mining machine.

Tasks or duties \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

--	--	--	--

141 144

--	--	--	--

145 148

# Appendix B

**44. Which of the following describes the current employment status of yourself and of your partner (if applicable)?**

- Here, partner means the person you are living with as legal husband or wife or 'de facto'.
- Please tick more than one box where applicable.

	Self	Partner (spouse or 'de facto')
Working full-time .....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Working part-time.....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Not working (but not retired).....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Home duties.....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Full-time student .....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Part-time student.....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Retired .....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Permanently unable to work/ill.....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Other (please specify) -----	<input type="checkbox"/> 1	<input type="checkbox"/> 1
-----	<input type="checkbox"/> 1	<input type="checkbox"/> 1

Office use only

<input type="checkbox"/> 149	<input type="checkbox"/> 150
<input type="checkbox"/> 151	<input type="checkbox"/> 152
<input type="checkbox"/> 153	<input type="checkbox"/> 154
<input type="checkbox"/> 155	<input type="checkbox"/> 156
<input type="checkbox"/> 157	<input type="checkbox"/> 158
<input type="checkbox"/> 159	<input type="checkbox"/> 160
<input type="checkbox"/> 161	<input type="checkbox"/> 162
<input type="checkbox"/> 163	<input type="checkbox"/> 164
<input type="checkbox"/> 165	<input type="checkbox"/> 166

**45. What is the gross income of yourself and of your partner (if applicable)?**

- Include income from all sources (e.g. wages, interest, pensions, Family Allowance Supplement and other benefits, tax rebates) before tax or anything else is taken out.
- Please estimate as best you can.

Gross income (i.e. before tax):	Self	Partner (spouse or 'de facto')
No income.....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
\$1 to \$135 per week (\$1 to \$7,000 per year) .....	<input type="checkbox"/> 2	<input type="checkbox"/> 2
\$136 to \$173 per week (\$7,001 to \$9,000 per year) .....	<input type="checkbox"/> 3	<input type="checkbox"/> 3
\$174 to \$212 per week (\$9,001 to \$11,000 per year) .....	<input type="checkbox"/> 4	<input type="checkbox"/> 4
\$213 to \$250 per week (\$11,001 to \$13,000 per year) .....	<input type="checkbox"/> 5	<input type="checkbox"/> 5
\$251 to \$289 per week (\$13,001 to \$15,000 per year) .....	<input type="checkbox"/> 6	<input type="checkbox"/> 6
\$290 to \$327 per week (\$15,001 to \$17,000 per year) .....	<input type="checkbox"/> 7	<input type="checkbox"/> 7
\$328 to \$365 per week (\$17,001 to \$19,000 per year) .....	<input type="checkbox"/> 8	<input type="checkbox"/> 8
\$366 to \$404 per week (\$19,001 to \$21,000 per year) .....	<input type="checkbox"/> 9	<input type="checkbox"/> 9
\$405 to \$442 per week (\$21,001 to \$23,000 per year) .....	<input type="checkbox"/> 10	<input type="checkbox"/> 10
\$443 to \$577 per week (\$23,001 to \$30,000 per year) .....	<input type="checkbox"/> 11	<input type="checkbox"/> 11
\$578 to \$769 per week (\$30,001 to \$40,000 per year) .....	<input type="checkbox"/> 12	<input type="checkbox"/> 12
\$770 to \$962 per week (\$40,001 to \$50,000 per year) .....	<input type="checkbox"/> 13	<input type="checkbox"/> 13
Over \$962 per week (Over \$50,000 per year) .....	<input type="checkbox"/> 14	<input type="checkbox"/> 14

<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
167 168	169 170

46. What is the main source of income of yourself and of your partner (if applicable)?

Office use only

	Self	Partner (spouse or 'de facto')
Wages or salary .....	<input type="checkbox"/> 1	<input type="checkbox"/> 1
Own business or share in partnership .....	<input type="checkbox"/> 2	<input type="checkbox"/> 2
Any government pension or cash benefit .....	<input type="checkbox"/> 3	<input type="checkbox"/> 3
Superannuation .....	<input type="checkbox"/> 4	<input type="checkbox"/> 4
Investment / interest .....	<input type="checkbox"/> 5	<input type="checkbox"/> 5
Other (please specify) -----	<input type="checkbox"/> 6	<input type="checkbox"/> 6
-----		

<input type="checkbox"/>	<input type="checkbox"/>
171	172

**PLEASE STOP HERE**

**Thank you for your co-operation. Please now return this questionnaire to the receptionist and tell her about any difficulties you had with these questions.**

## OFFICE USE ONLY

To be completed during examination

Weight \_\_\_\_\_ kg

Height \_\_\_\_\_ cm

Waist circumference:

1st reading \_\_\_\_\_ cm

2nd reading \_\_\_\_\_ cm

Hip (buttocks) circumference:

1st reading \_\_\_\_\_ cm

2nd reading \_\_\_\_\_ cm

Blood pressure observer \_\_\_\_\_

Sphygmomanometer \_\_\_\_\_

Ambient temperature \_\_\_\_\_ °C

Blood pressure:

1st reading:

Systolic \_\_\_\_\_ mm Hg

Diastolic \_\_\_\_\_ mm Hg

2nd reading:

Systolic \_\_\_\_\_ mm Hg

Diastolic \_\_\_\_\_ mm Hg

Have you had anything to eat or drink in the past 12 hours apart from water, black tea or black coffee?

No  1

Yes  2

Have you donated blood in the last 12 months?

No  1

Yes  2

If yes, how recently did you donate blood?

Less than 1 week ago.....  1

Between 1 week and 1 month ago.....  2

Between 1 month and 3 months ago.....  3

Between 3 months and 6 months ago.....  4

Between 6 months and 12 months ago.....  5

Do you regularly take iron supplements or a multi-vitamin mineral supplement containing iron?

No.....  1

Yes.....  2

Don't know....  3

173     ·  176

177     179

180     182

183     185

186     188

189     191

192

193   194

195   196

197     199

200     202

203     205

206     208

209

210

211

212

### Catchment areas

Catchment areas for each centre were originally defined for the 1980 survey in terms of Commonwealth electoral divisions and subdivisions. A distance of approximately 16 km was used for ease of attending the centre, but particular geographic characteristics and the availability of public transport influenced the placement of the catchment area boundaries.

Catchment boundaries for the 1983 survey were also defined in terms of electoral divisions and subdivisions. However, because of changes to electoral boundaries since 1980 and 1983, it has been necessary to use the postcode level in the definition of comparable catchment areas for the 1989 survey.

The catchment areas for the 1989 survey were defined as follows:

	<i>Electoral Division</i>	<i>Electoral Subdivision or postcode</i>
SYDNEY NORTH	Bennelong	
	Berowra	Hornsby Central, Pennant Hills, Turramurra, Turramurra South, Wahroonga
	Bradfield	
	Dundas	
	North Sydney	
	Parramatta	Ermington, Parramatta North
	Warringah	
SYDNEY SOUTH	Banks	
	Barton	
	Blaxland	
	Fowler	Postcode 2170 only
	Grayndler	
	Kingsford-Smith	
	Lowe	
	Phillip	
	Prospect	Fairfield
	Reid	
St. George		
Sydney		
Wentworth		
MELBOURNE	Batman	Northcote, Preston East
	Chisholm	
	Gellibrand	
	Goldstein	
	Henty	
	Higgins	
	Kooyong	
	Maribyrnong	Essendon, Niddrie, Strathmore
	Melbourne	
	Melbourne Ports	
	Menzies	Bulleen, Doncaster
	Wills	

# Appendix C

BRISBANE	Bowman	
	Brisbane	
	Griffith	
	Lilley	
	Morton	
	Petrie	Postcodes 4012, 4017, 4031, 4032, 4034-4036, 4053-4055
	Ryan	
	Fadden )	Postcodes 4068, 4073-4077, 4103-4113,
	Forde )	4115-4117, 4119, 4122, 4123, 4126,
	Rankin )	4156
ADELAIDE	Adelaide	
	Bonython	Briggs North, Ramsay
	Boothby	
	Hawker	
	Hindmarsh	
	Kingston	
	Makin	
	Port Adelaide	
	Sturt	
PERTH	Canning	Postcodes 6107-6110, 6155
	Cowan	
	Curtin	
	Fremantle	Postcodes 6150, 6153-6160, 6162, 6163
	Moore	Postcodes 6053-6056
	Perth	
	Stirling	
	Swan	
		Tangney
HOBART	Denison	
	Franklin	Bellerive, Clarence, Kingborough, Lindisfarne
DARWIN	Northern Territory	Casuarina
		Fannie Bay
		Jingili
		Karama
		Leanyer
		Ludmilla
		Millner
		Nightcliff
		Palmerston
		Port Darwin
		Sanderson
	Wanguri	
CANBERRA	Canberra	
	Fraser	



### The weighting procedure

Although the initial sample selected for each city was a random probability sample, the final sample of respondents is not representative of the wider community for two reasons. First, the use of the Commonwealth electoral roll as a sampling frame leads to migrants, the young and the more mobile being under-represented among the respondents. Second, differential response rates by age group and between Australian born and migrants introduces imbalance into the sample. It is important to take these factors into account when estimating a city's risk factor levels because the risk factors measured in this survey are related to age, sex and country of birth.

Imbalance in the respondent sample can be allowed for by applying weights to record such that the estimates reflect the demographic distribution of the city's population rather than that of the respondent sample. Thus, for each city, the sample has been post-stratified by age (10-year age groups), sex and country of birth (Australia/overseas). The weights which adjust for imbalance in the respondent sample are the ratio of the population distribution to the distribution of respondents across these post-strata. These weights are given in the tables which follow. For example, the weight for a male respondent in Brisbane, aged 20-29 and born in Australia is:

$$(79,802/358,939)/(69/384) = 0.2223/0.1797 = 1.2373$$

Each record has been multiplied by the appropriate weight to give the city estimates in Chapter 5. Weights were recalculated for estimates based on sub-sets of the respondents; that is, subsets defined by fasting status, oral contraceptive use or pregnancy status.

Weights for the age standardised estimates in Chapter 4 (City comparisons) were derived by replacing the population distributions in the following tables by the WHO World Standard Population, at the same time maintaining the population ratio of Australian born to overseas born. For example, the reference population size for males aged 20-29 is 16,000 (see Chapter 3). For Perth, this was further allocated between Australian born and overseas born in the ratio 58,728: 27,990.

# Appendix D

## Sample numbers, population estimates and post-strata weights, men

City	Australian born					Overseas born					Total
	20-29	30-39	40-49	50-59	60-69	20-29	30-39	40-49	50-59	60-69	
<b>Sydney</b>											
Sample	130	112	109	96	96	25	43	73	68	61	813
Population	200,549	165,374	123,407	94,929	86,973	76,859	104,034	100,720	65,591	45,492	1,063,928
Weight	1.1788	1.1283	0.8652	0.7556	0.6923	2.3493	1.8488	1.0543	0.7371	0.5699	
<b>Melbourne</b>											
Sample	61	79	48	46	52	17	24	35	34	27	423
Population	181,337	136,574	94,470	68,101	62,079	60,669	85,919	88,996	66,146	43,273	887,564
Weight	1.4168	0.8239	0.9380	0.7056	0.5690	1.7008	1.7062	1.2118	0.9272	0.7638	
<b>Brisbane</b>											
Sample	69	80	67	38	53	6	17	22	17	15	384
Population	79,802	68,574	53,277	36,359	31,932	18,256	22,442	22,319	14,669	11,309	358,939
Weight	1.2373	0.9170	0.8507	1.0236	0.6446	3.2551	1.4123	1.0853	0.9231	0.8066	
<b>Adelaide</b>											
Sample	150	180	148	87	101	30	45	72	71	60	944
Population	62,651	50,213	34,546	23,152	24,135	20,097	25,059	25,381	21,746	17,281	304,261
Weight	1.2959	0.8655	0.7242	0.8256	0.7414	2.0784	1.7277	1.0937	0.9503	0.8936	
<b>Perth</b>											
Sample	77	84	57	58	44	15	29	54	32	33	483
Population	58,728	49,505	33,248	23,281	18,692	27,990	34,182	33,774	22,796	17,483	319,679
Weight	1.1524	0.8904	0.8813	0.6065	0.6419	2.8193	1.7809	0.9450	1.0763	0.8005	
<b>Hobart</b>											
Sample	93	118	90	64	72	4	9	34	19	20	523
Population	12,171	11,299	8,056	5,727	5,170	1,361	2,095	2,276	1,907	1,530	51,592
Weight	1.3267	0.9707	0.9074	0.9071	0.7279	3.4492	2.3597	0.6786	1.0175	0.7755	
<b>Darwin</b>											
Sample	64	115	103	36	17	23	40	51	29	13	491
Population	5,575	4,861	2,943	1,462	940	1,711	2,237	2,112	1,083	570	23,494
Weight	1.8205	0.8834	0.5971	0.8487	1.1556	1.5547	1.1688	0.8655	0.7805	0.9163	
<b>Canberra</b>											
Sample	88	93	91	37	31	18	32	42	36	23	491
Population	19,419	16,060	11,001	5,723	3,618	5,205	6,845	7,093	4,307	2,570	81,841
Weight	1.3239	1.0360	0.7253	0.9280	0.7002	1.7348	1.2833	1.0132	0.7178	0.6704	

Note: Sample denotes the number of respondents. Population denotes the estimated target population derived from 1988 age-sex estimates for each Statistical Division and the 1986 Population Census estimates of persons born overseas. Weight is calculated as  $(N_h/N)/n_h/n$  where  $N$  denotes the population,  $n$  the sample and  $h$  the post-strata.

## Sample numbers, population estimates and post-strata weights, women

City	Australian born					Overseas born					Total
	20-29	30-39	40-49	50-59	60-69	20-29	30-39	40-49	50-59	60-69	
<b>Sydney</b>											
Sample	127	138	149	114	121	21	50	63	46	40	869
Population	201,464	171,472	130,194	102,838	105,561	78,425	102,467	84,895	53,304	43,645	1,074,265
Weight	1.2832	1.0051	0.7068	0.7297	0.7057	3.0210	1.6578	1.0901	0.9374	0.8826	
<b>Melbourne</b>											
Sample	58	82	48	45	60	11	15	42	41	19	421
Population	183,191	142,826	99,742	74,285	75,755	60,213	86,307	80,129	55,729	40,779	898,956
Weight	1.4792	0.8157	0.9732	0.7731	0.5913	2.5635	2.6946	0.8935	0.6366	1.0051	
<b>Brisbane</b>											
Sample	72	73	81	64	57	10	18	21	20	15	431
Population	80,725	72,692	55,600	39,365	38,079	18,157	22,130	19,161	11,661	11,199	368,769
Weight	1.3104	1.1638	0.8023	0.7189	0.7808	2.1221	1.4369	1.0664	0.6814	0.8726	
<b>Adelaide</b>											
Sample	172	172	137	95	119	27	59	80	56	50	967
Population	62,753	53,283	36,132	26,115	30,271	19,590	25,126	24,661	19,540	16,344	313,815
Weight	1.1242	0.9546	0.8127	0.8471	0.7838	2.2358	1.3123	0.9499	1.0752	1.0073	
<b>Perth</b>											
Sample	60	95	76	54	45	26	25	40	35	24	480
Population	60,217	52,495	35,608	25,411	22,651	28,531	34,739	29,898	20,044	17,194	326,788
Weight	1.4742	0.8117	0.6882	0.6912	0.7393	1.6118	2.0410	1.0979	0.8412	1.0523	
<b>Hobart</b>											
Sample	98	135	99	67	75	11	15	15	21	24	560
Population	12,502	11,815	8,481	6,343	6,205	1,385	1,922	1,908	1,578	1,280	53,419
Weight	1.3374	0.9175	0.8981	0.9925	0.8673	1.3199	1.3432	1.3335	0.7877	0.5591	
<b>Darwin</b>											
Sample	89	128	92	30	18	24	50	48	21	9	509
Population	5,340	4,697	2,650	1,271	945	1,825	2,301	1,613	759	459	21,860
Weight	1.3971	0.8544	0.6707	0.9865	1.2224	1.7706	1.0716	0.7825	0.8416	1.1875	
<b>Canberra</b>											
Sample	84	100	85	49	36	10	29	53	28	16	490
Population	18,623	16,401	11,339	5,708	4,231	4,994	6,966	6,210	3,454	2,575	80,501
Weight	1.3495	0.9983	0.8120	0.7091	0.7154	3.0398	1.4621	0.7132	0.7509	0.9796	

Note: Sample denotes the number of respondents. Population denotes the estimated target population derived from 1988 age-sex estimates for each Statistical Division and the 1986 Population Census estimates of persons born overseas. Weight is calculated as  $(N_h/N)/n_h/n$  where  $N$  denotes the population,  $n$  the sample and  $h$  the post-strata.

## Appendix E

### Definition of weight for height classification

This report provides estimates of the proportions of the study population which were underweight, of acceptable weight, overweight or obese. The estimates are based on Quetelet's body mass index (BMI), which is calculated as weight (in kilograms) divided by the square of height (in metres). In this survey, participants were measured in socks, stockings or barefeet and light street clothing (no coats or jumpers). In the calculation of BMI, 1 kg was deducted from the measured weight as an allowance for weight of clothing. Pregnant women were excluded from the calculations.

The following criteria were applied to BMI which was calculated as a continuous variable.

<i>Descriptive term</i>	<i>BMI (kg/m<sup>2</sup>)</i>
Underweight	less than 20
Acceptable weight	20 to 25 inclusive
Overweight	greater than 25 and up to and including 30
Obese	greater than 30

That is, underweight is defined as  $BMI < 20$ ; acceptable weight as  $20 \leq BMI \leq 25$ ; overweight as  $25 < BMI \leq 30$ ; and obese as  $BMI > 30$ , where BMI is a continuous variable calculated as  $(Wt-1)/H^2$ .

The classifications of acceptable weight, overweight and obesity are based on recommendations of the National Health and Medical Research Council<sup>1,2</sup>. The classifications differ from those used in the 1980 and 1983 risk factor prevalence surveys.

#### References

1. National Health and Medical Research Council. *Report of the ninety-eighth session*. Canberra: AGPS, 1984.
2. National Health and Medical Research Council. *Report of the one hundredth session*. Canberra: AGPS, 1985.

## Definition of risks from alcohol consumption

Data from the frequency and quantity questions have been combined to classify alcohol consumption. This classification can be expressed as a scale ranging from 'no risk' to 'very high risk', as shown in the tables below. Risk relates to harm from a wide variety of possible causes, not only heart disease. It is accepted that with identical drinking patterns, risks are greater for women than for men. In fact, because of particular risks associated with pregnancy, it has been assumed that there is no risk free level of drinking in women.

At risk drinking has been defined as intermediate risk or greater.

Category	Description	Risk	
		Men	Women
A	Non-drinkers		
B	Average daily intake of less than 3 drinks	None	Low
C	Average daily intake of 4 drinks or 9-12 drinks in any day	Low	Intermediate
D	Average daily intake of 5-8 drinks or occasional excess	Intermediate	High
E	Average daily intake of 9-12 drinks or frequent or great occasional excessive intake	High	Very high
F	Average daily intake of over 12 drinks	Very high	Very high

The categories of risk have been defined from Q33 and Q34 as follows.

Q33 Frequency of drinking (per week)	Q34 Amount (number of drinks)					
	1-2	3-4	5-8	9-12	13-20	20
Less than once a week	B	B	B	C	D	E
1 or 2 days	B	B	B	C	D	E
3 or 4 days	B	B	C	D	E	F
5 or 6 days	B	C	D	E	F	F
Every day	B	C	D	E	F	F

# Appendix G

## Australian Standard Classification of Occupations (ASCO)

### Major and minor groups

- |                                                        |                                                       |
|--------------------------------------------------------|-------------------------------------------------------|
| <b>1 Managers and administrators</b>                   | <b>5 Clerks</b>                                       |
| 11 Legislators and government appointed officials      | 51 Stenographers and typists                          |
| 12 General managers                                    | 52 Data processing and business machine operators     |
| 13 Specialist managers                                 | 53 Numerical clerks                                   |
| 14 Farmers and farm managers                           | 54 Filing, sorting and copying clerks                 |
| 15 Managing supervisors (other business)               | 55 Material recording and despatching clerks          |
| <b>2 Professionals</b>                                 | 56 Receptionists, telephonists and messengers         |
| 21 Natural scientists                                  | 59 Miscellaneous clerks                               |
| 22 Building professionals and engineers                | <b>6 Salespersons and personal service workers</b>    |
| 23 Health diagnosis and treatment practitioners        | 61 Investment, insurance and real estate salespersons |
| 24 School teachers                                     | 62 Sales representatives                              |
| 25 Other teachers and instructors                      | 63 Sales assistants                                   |
| 26 Social professionals                                | 64 Tellers, cashiers and ticket salespersons          |
| 27 Business professionals                              | 65 Miscellaneous salespersons                         |
| 28 Artists and related professionals                   | 66 Personal service workers                           |
| 29 Miscellaneous professionals                         | <b>7 Plant and machine operators, and drivers</b>     |
| <b>3 Para-professionals</b>                            | 71 Road and rail transport drivers                    |
| 31 Medical and science technical officers technicians  | 72 Mobile plant operators (except transport)          |
| 32 Engineering and building associates and technicians | 73 Stationary plant operators                         |
| 33 Air and sea transport technical workers             | 74 Machine operators                                  |
| 34 Registered nurses                                   | <b>8 Labourers and related workers</b>                |
| 35 Police                                              | 81 Trades assistants and factory hands                |
| 39 Miscellaneous para-professionals                    | 82 Agricultural labourers and related workers         |
| <b>4 Tradespersons</b>                                 | 83 Cleaners                                           |
| 41 Metal fitting and machining tradespersons           | 84 Construction and mining labourers                  |
| 42 Other metal tradespersons                           | 89 Miscellaneous labourers and related workers        |
| 43 Electrical and electronics tradespersons            |                                                       |
| 44 Building tradespersons                              |                                                       |
| 45 Printing tradespersons                              |                                                       |
| 46 Vehicle tradespersons                               |                                                       |
| 47 Food tradespersons                                  |                                                       |
| 48 Amenity horticultural tradespersons                 |                                                       |
| 49 Miscellaneous tradespersons                         |                                                       |

### Related publications

National Heart Foundation of Australia. *Risk Factor Prevalence Study, No 1 — 1980*. Canberra: NHFA, 1982.

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Commonwealth Department of Health. *National Dietary Survey of Adults: 1983, No 1 Foods consumed*. Canberra: AGPS, 1986.

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Risk Factor Prevalence Study Management Committee. *Risk Factor Prevalence Study: Survey No 3 1989*. Canberra: National Heart Foundation of Australia and Australian Institute of Health, 1990.

# Appendix I

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