

# Ischaemic heart disease

## Introduction

Ischaemic heart disease (IHD) is the narrowing or blocking of the coronary arteries that supply blood and oxygen to the heart. IHD can cause heart attack and angina (typically temporary chest discomfort when walking or exercising) and lead to heart failure. Modifiable risk factors for IHD include high blood cholesterol, high blood pressure, tobacco smoking, overweight and obesity, physical inactivity, poorly controlled diabetes, and inadequate vegetable and fruit intake (Selwyn and Braunwald 2005; World Health Organization 2003b).

### What were the survey questions?

IHD has been measured in the New Zealand Health Survey by asking adult participants if they have ever been diagnosed by a doctor with a heart attack that resulted in hospitalisation, and/or angina.

Time trend data for the number of people who have ever had ischaemic heart disease are not available, because earlier New Zealand Health Surveys combined heart failure with heart attack and angina in a generic heart disease question. Consequently, IHD could not be separated from other forms of heart disease before the 2006/07 New Zealand Health Survey.

IHD is very rare for children. The figures presented in this report are for the adult population only.

## Diagnosed ischaemic heart disease for adults

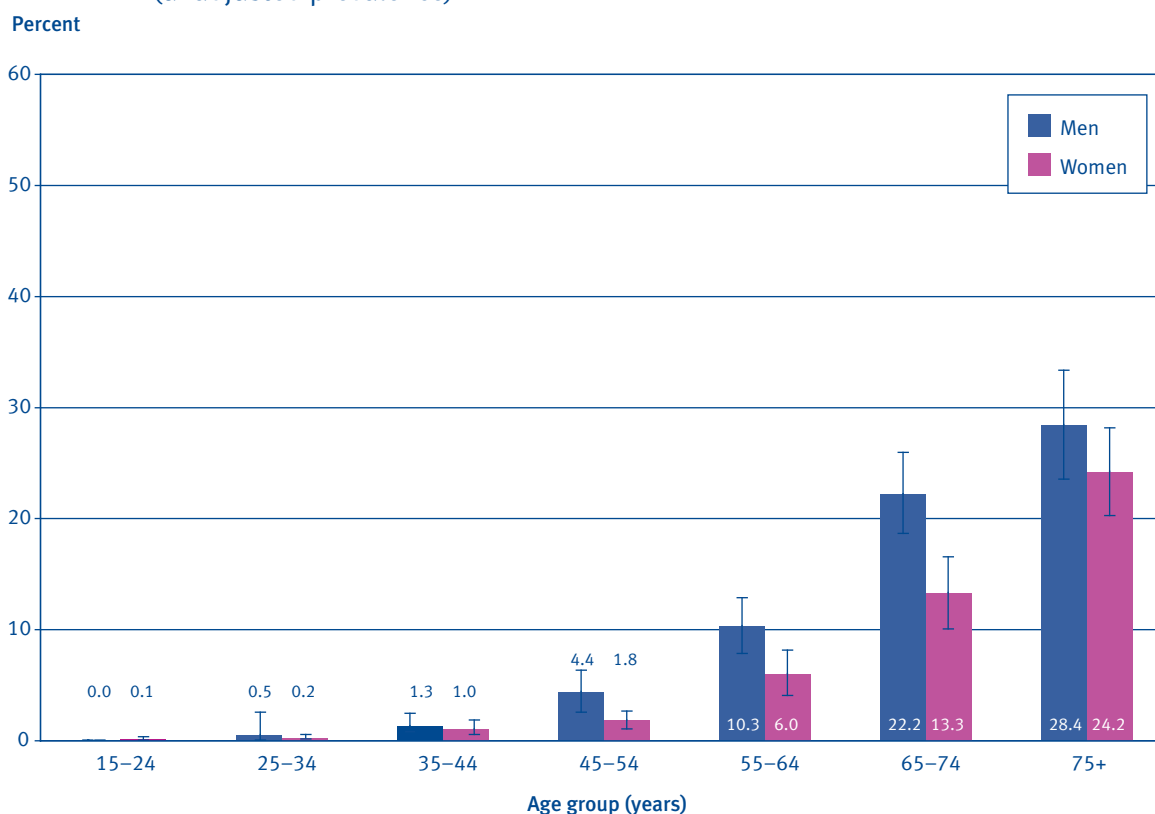
One in twenty adults (5.2%, 4.7–5.6) had been diagnosed with ischaemic heart disease. This equates to 161,000 adults, including 118,500 with angina (3.8%, 3.4–4.2) and 89,400 who had a heart attack resulting in hospitalisation at some point in their life (2.9%, 2.5–3.2).

Men (4.9%, 4.3–5.5) were significantly more likely to be diagnosed with ischaemic heart disease than women (3.1%, 2.7–3.5), adjusted for age.

## Diagnosed ischaemic heart disease, by age group

Ischaemic heart disease occurred earlier in men than in women, and increased with age in both genders. One in five men aged 65 years and over had been diagnosed with angina or had a heart attack that resulted in hospitalisation (Figure 3.7).

Figure 3.7: Diagnosed IHD (angina or heart attack) for adults, by age group and gender (unadjusted prevalence)



Source: 2006/07 New Zealand Health Survey

## Diagnosed ischaemic heart disease, by ethnic group

Table 3.5 gives an indication of the burden of ischaemic heart disease in New Zealand's main ethnic population groups.

Table 3.5: Diagnosed IHD (angina or heart attack) for adults, by ethnic group (unadjusted)

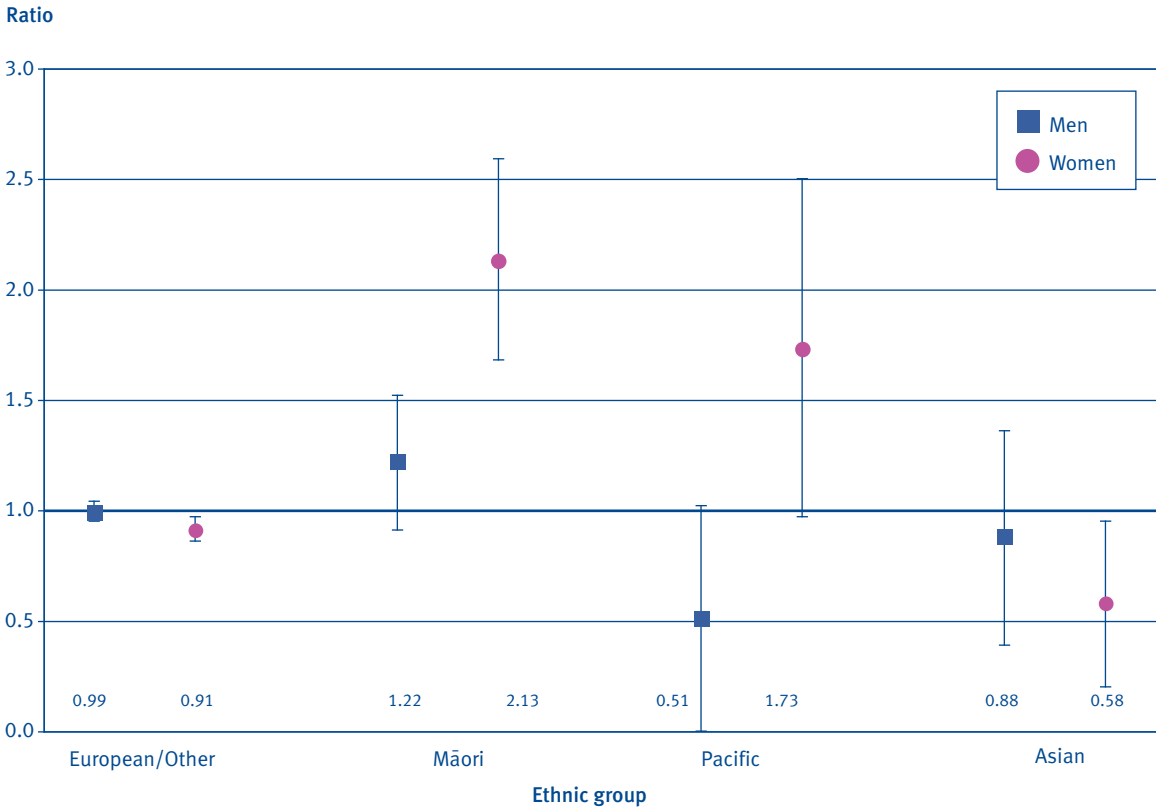
Ethnic group	Prevalence (95% CI)	Number of adults
European/ Other	5.5 (5.0–6.0)	140400
Māori	4.7 (3.8–5.5)	16700
Pacific	2.9 (1.8–4.0)	4800
Asian	2.3 (1.1–3.4)	6400

Source: 2006/07 New Zealand Health Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, Māori women had twice the likelihood of having ever been diagnosed with ischaemic heart disease compared to women in the total population (Figure 3.8). Asian women and European/Other women were less likely to be diagnosed with ischaemic heart disease. There were no significant differences for men by ethnic group (Figure 3.8).

Figure 3.8: Diagnosed IHD (angina or heart attack) for adults, by ethnic group and gender (age standardised rate ratio)



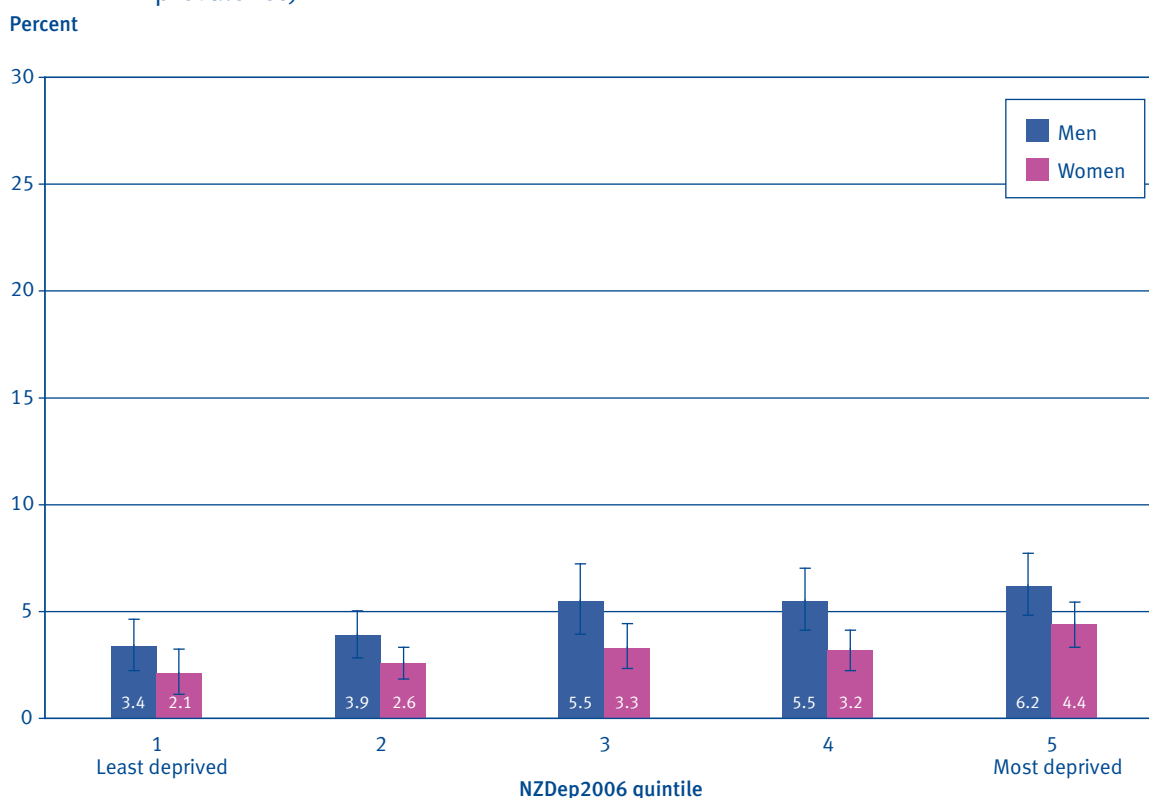
Source: 2006/07 New Zealand Health Survey

Notes: Age standardised to the WHO world population. Reference group, with a rate ratio of 1.00 (indicated by the bold line), is the total male or female population aged 15 years and over. Total response standard output for ethnic groups has been used.

### Diagnosed ischaemic heart disease, by neighbourhood deprivation

Ischaemic heart disease was less prevalent in neighbourhoods with low deprivation. Men and women living in NZDep2006 quintile 5 (most deprived) were twice as likely to be diagnosed with IHD than men and women in quintile 1 (least deprived) (Figure 3.9).

Figure 3.9: Diagnosed IHD for adults, by NZDep2006 quintile and gender (age standardised prevalence)



Source: 2006/07 New Zealand Health Survey

## Diagnosed ischaemic heart disease, by DHB area

There were no significant differences in IHD by DHB area, with the exception of Auckland DHB, where the prevalence was slightly lower than the total national rate (Table 3.6).

Table 3.6: Diagnosed IHD (angina or heart attack) for adults, by DHB area (unadjusted)

DHB area	Prevalence (95% CI)	Number of adults
Northland / Tairāwhiti / Hawke's Bay / Lakes / Whanganui	6.1 (5.0–7.1)	22800
Waitemata	4.8 (3.3–6.3)	18100
Auckland	3.8 (2.5–5.0) –	12100
Counties Manukau	4.3 (2.9–5.8)	14000
Waikato	4.2 (2.9–5.4)	10800
Bay of Plenty / Taranaki / MidCentral	6.2 (4.8–7.6)	21800
Wairarapa / Hutt Valley / Capital and Coast	4.8 (3.3–6.2)	16500
Canterbury	5.6 (4.3–7.0)	20900
Nelson Marlborough / West Coast / South Canterbury / Otago / Southland	6.1 (4.4–7.8)	23900
<b>New Zealand total</b>	<b>5.2 (4.7–5.6)</b>	<b>161000</b>

Source: 2006/07 New Zealand Health Survey

Notes: Estimates indicated with a + are significantly higher than the national rate, and estimates indicated with a – are significantly lower than the national rate. Data are based on direct survey estimates and could be confounded by different population characteristics in each DHB. Due to small sample size, some DHB areas have been combined. Survey population is the estimated resident population living in permanent private dwellings at 31 June 2007.

## Treatment for ischaemic heart disease

One in three adults with IHD (36.2%, 32.4–40.1) had received a medical intervention. This included procedures such as coronary artery bypass grafts (CABG), coronary angioplasty, coronary stenting (stents), heart transplants, and implanting pacemakers and cardiac defibrillators.

One in three adults with IHD (36.3%, 32.5–40.0) was taking statins regularly. Statins are pills that are proven to lower the risk of heart disease and mortality (Heart Protection Study Collaborative Group 2002). Half of adults with IHD (53.5%, 49.2–57.7) were taking aspirin daily. Taking aspirin reduces the risk of heart attack, angina and mortality (Antiplatelet Trialists' Collaboration 1994).

One in eight adults with IHD (12.0%, 9.5–14.5) reported not using any treatment for IHD.