



3.5 Coronary heart disease

Coronary heart disease (CHD) occurs when there is a blockage in the blood vessels that supply blood to the heart muscle. There are two major clinical forms: heart attack—an acute life-threatening event when the blood vessel supplying the heart itself is suddenly completely blocked, threatening to damage the heart muscle and its function, requiring prompt treatment, and angina—a chronic condition in which short episodes of chest pain can occur periodically when the heart has a temporary deficiency in its blood supply.

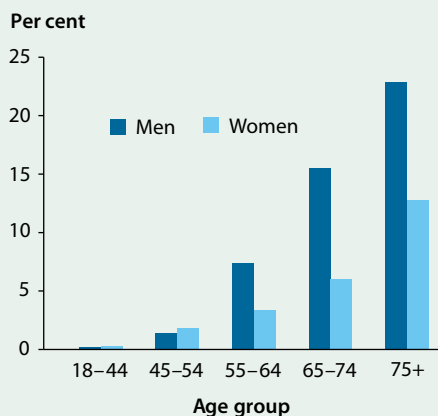
Older people with CHD are at increased risk of developing heart failure, which occurs when the heart functions less effectively in its role of pumping blood around the body.

CHD is very common, killing more people in Australia than any other disease. However, it is largely preventable, as many of its risk factors are modifiable, including tobacco smoking, high blood cholesterol, physical inactivity, poor nutrition and obesity (see 'Chapter 4 Determinants of health').

How common is coronary heart disease?

- In 2014–15, an estimated 643,000 Australian adults (3.6%) had been told by a doctor or nurse that they had CHD. Of these, 281,000 had experienced angina, 428,000 had previously had a heart attack, and 55,000 had other forms of CHD (a person may report more than one disease) (ABS 2015a, 2015b).
- Further, an estimated 108,000 adults had heart failure, which is a common outcome of diseases such as CHD that damage the heart.
- Rates of CHD were 1.7 times as high in men as women.

Figure 3.5.1: Self-reported coronary heart disease, people aged 18 and over, by age and by sex, 2014–15



Note: Coronary heart disease is based on self-reported results only.

Source: ABS 2015a.

- CHD occurred more commonly in older age groups—it was 10 times as high in people aged 75 and over as in people aged 45–54 (17% and 1.7%, respectively) (ABS 2015a) (Figure 3.5.1).
- An estimated 65,300 people aged 25 and over experienced an acute coronary event in 2013 in the form of a heart attack or unstable angina—around 200 events every day, based on hospitalisations and mortality data. The age-standardised rate declined by 29% between 2007 and 2013, from 534 to 379 events per 100,000 population (see 'Chapter 7.1 Indicators of Australia's health').



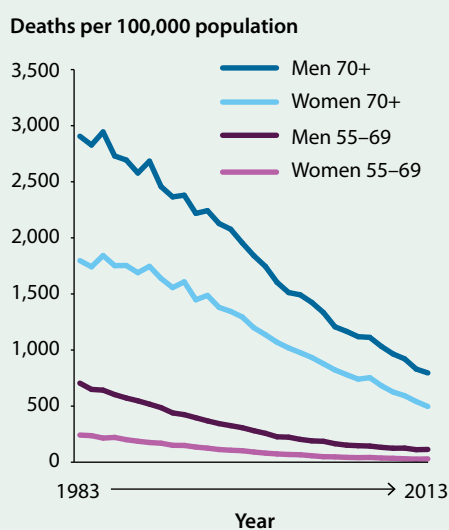
Hospitalisations

- In 2013–14, there were around 149,000 hospitalisations where CHD was the principal diagnosis (see Glossary)—of these, 36% were for acute myocardial infarction (54,100) and 34% for angina (50,700). CHD accounted for around 1.5% of all hospitalisations.
- Most admissions for acute myocardial infarction (80%) and angina (64%) were on an emergency basis.
- Of all CHD hospitalisations, 44% had a coronary angiography (a diagnostic procedure) and 22% underwent revascularisation (surgical procedures to restore blood supply).
- CHD was the leading cause of hospitalisations for cardiovascular disease (31% of all cardiovascular hospitalisations) across most age groups, except for those aged 85 and over. In this age group, hospitalisation rates for heart failure and cardiomyopathy were 30% higher than for CHD (4,400 and 3,400 per 100,000), reflecting the increasing burden and need for acute care for these diseases.
- CHD hospitalisation rates have declined by 30% over the last decade (from an age-standardised rate of 804 to 564 per 100,000 population between 2003–04 and 2013–14). The downward trend was similar for men (28%) and women (33%), although men were hospitalised at much higher rates than women (807 compared with 340 per 100,000 population in 2013–14).

Deaths

- In 2013, CHD was the leading single cause of death in Australia, accounting for 19,800 deaths as the underlying cause of death. This represents 13% of all deaths, and almost 1 in 2 cardiovascular deaths.

Figure 3.5.2: Coronary heart disease death rates, people aged 55 and over, by selected age groups and by sex, 1983–2013



Source: AIHW National Mortality Database.

- Overall, the CHD death rate has fallen by 75% over the last three decades for both males and females, largely due to reductions in key risk factors—such as smoking, high cholesterol and high blood pressure—and to improvements in medical and surgical treatment. However, for some age groups (such as the age group 55–69), there has been a levelling-off of this mortality decline in the most recent decade (Figure 3.5.2).
- Where CHD is the underlying cause of death, common associated causes of death in 2011 include heart failure and cardiomyopathy (27%), hypertensive disease (21%) and diabetes (12%), highlighting the interrelated nature of these conditions with CHD.



Variations among population groups

Compared with non-Indigenous Australians, **Indigenous Australians** were:



- 2 times as likely to have CHD
- 2.4 times as likely to be hospitalised for CHD
- 1.6 times as likely to die from CHD
- experiencing CHD at younger ages: in the 35–44 age group, 4.7 times as likely to report having CHD, and 7 times as likely to be hospitalised for CHD.

Compared with those living in *Major cities*, people in **combined Remote and Very remote areas** were:



- 1.6 times as likely to be hospitalised for CHD
- 1.3 times as likely to die from CHD.

Compared with those living in the highest socioeconomic areas, people living in the **lowest socioeconomic areas** were:



- 2.2 times as likely to have CHD
- 1.5 times as likely to be hospitalised for CHD
- 1.4 times as likely to die from CHD.

What is missing from the picture?

There are no reliable national and jurisdictional data on the number of new cases of CHD or heart failure each year. Proxy measures that combine hospital and mortality data are used to estimate new cases of acute coronary events in the form of a heart attack or unstable angina; however, these methods do not count the less-severe cases of CHD that do not result in hospitalisation.

Further information is required on primary health care and on the long-term outcomes of people treated for CHD. Currently there are limited national data on rates of readmissions, survival and case-fatality for people with CHD.

Where do I go for more information?

More information on coronary heart disease is available at:

www.aihw.gov.au/cardiovascular-disease.

The following reports are available for free download on the AIHW website: The *Cardiovascular disease, diabetes and chronic kidney disease—Australian facts series* ([Mortality](#); [Prevalence and incidence](#); [Morbidity—hospital care](#); [Risk factors](#); [Aboriginal and Torres Strait Islander people](#)) and [Trends in coronary heart disease mortality: age groups and populations](#).

References

ABS (Australian Bureau of Statistics) 2015a. National Health Survey: Australia, 2014–15, customised report. Canberra: ABS.

ABS 2015b. National Health Survey: first results, Australia, 2014–15. ABS cat. no. 4364.0.55.001. Canberra: ABS.