



Socioeconomic inequalities in cardiovascular disease, diabetes and chronic kidney disease

Australians as a whole enjoy good health, but the benefits are not shared equally. People who are socioeconomically disadvantaged are, on average, at greater risk of poor health, have higher rates of illness, disability and death, and live shorter lives than people from higher socioeconomic groups.

Generally, the higher a person's socioeconomic position, the healthier they are. In Australia, many chronic conditions, including cardiovascular disease (CVD), diabetes and chronic kidney disease (CKD), show this social gradient in health.

For example, men and women with secondary education or lower are almost 3 times as likely to die from diabetes as men and women with a Bachelor degree or higher. Men with a diploma or certificate are 1.7 times as likely to die, and women 1.3 times as likely to die.

Why is this the case? Evidence points to the close relationship between people's health and their living and working conditions. Factors such as income, education, employment and work, housing and homelessness, and the built environment—known as the social determinants of health—can affect the health of individuals and communities.

This fact sheet highlights some key findings from *Indicators of socioeconomic inequalities in cardiovascular disease, diabetes and chronic kidney disease*. The report explores the level of inequality for the population with these diseases. It includes some novel analysis—such as the linking of census and mortality data—to assess individual measures of socioeconomic position. This allows for better measurement of levels of inequality in the population.

What did we find?

Cardiovascular disease

The rate of heart attack or stroke decreases as socioeconomic position increases. If all Australians had the same heart attack rate as people in the highest socioeconomic areas in 2016, the total heart attack rate would have been 36% less—resulting in 19,700 fewer heart attacks.

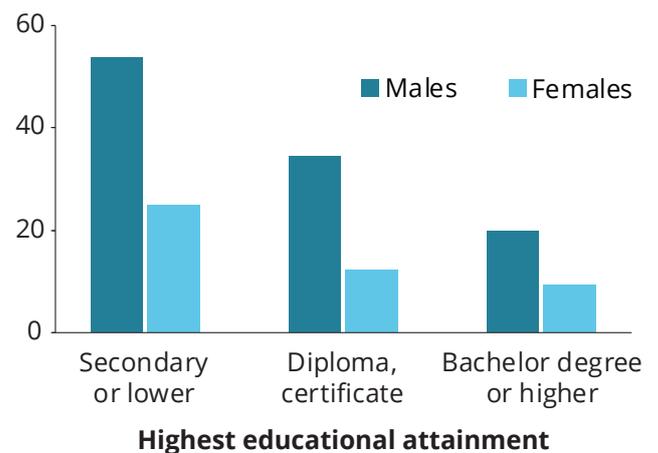
Although rates of heart attack and stroke, and deaths from CVD, are falling overall, socioeconomic inequalities are widening in some instances. For example, for males, the CVD death rate ratio (lowest/highest socioeconomic group) rose from 1.23 in 2001 to 1.52 in 2016.

Diabetes

The prevalence (how many people have a disease at any given time) of type 2 diabetes increases with increasing socioeconomic disadvantage. If all Australians had the same prevalence of type 2 diabetes as people in the highest socioeconomic areas in 2016, the total rate would have reduced by 46%, or 416,000 fewer people with the disease.

Diabetes mortality (as underlying or associated cause), by highest educational attainment and sex, persons aged 25–74, 2011–12

Deaths per 100,000



Chronic kidney disease

The prevalence of CKD also increases with increasing socioeconomic disadvantage. In 2011–12, males in the lowest socioeconomic group were estimated as having a rate of CKD that was 1.7 times as high as males in the highest group. There was no statistically significant difference for females.

End-stage kidney disease (ESKD) is the most serious form of CKD. If all Australians had the same treated ESKD rate as people in the highest socioeconomic areas in 2016, the total rate would have reduced by 38% and there would have been 8,300 fewer people needing kidney replacement therapy.

All is not equal for death rates

There are socioeconomic inequalities in death rates for all 3 diseases. If all Australians had the same death rates as people living in the highest socioeconomic areas, thousands of lives could be saved each year. Based on rates from 2016, there would have been:

- 8,600 fewer deaths due to CVD
- 4,800 fewer deaths due to CKD
- 6,900 fewer deaths due to diabetes.

There were similar findings when looking at death rates based on income, education and housing groups.

Disease	Death rate ratio (lowest/highest group)			
	Socioeconomic area 2016	Household income 2011–12	Education 2011–12	Housing tenure (rented/owned) 2011–12
Cardiovascular disease				
Males	1.5	1.8	2.4	1.4
Females	1.3	1.3	2.2	1.3
Diabetes				
Males	2.2	2.1	2.7	1.6
Females	2.4	1.6	2.7	1.8
Chronic kidney disease				
Males	1.6	2.1	2.1	1.4
Females	1.8	1.5	2.1	1.5

Understanding the causes of inequalities

Indicators of socioeconomic inequalities in cardiovascular disease, diabetes and chronic kidney disease, documents inequalities in disease incidence, prevalence and deaths, but does not assess causal links. For example, the fact that the proportion of people with diabetes was higher among those with lower incomes may be because people who had less income were at an increased risk of developing diabetes, or it may be that having diabetes limited their opportunity to earn a higher income. Other social determinants may also play a role.

Social determinants of health act through complex and multidirectional pathways. There is scope to link health and welfare data to provide a better understanding of the experience of different groups of people, the relationships between health and welfare, and greater evidence for causal pathways to good health.

For more detail, see the full report, [Indicators of socioeconomic inequalities in cardiovascular disease, diabetes and chronic kidney disease](#), which can be downloaded for free from the AIHW website.

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