Topic 3: The social gradient and health

The health advantages and disadvantages experienced by populations is formed by the broader social and economic conditions in which they live. Inequalities in health can be observed within the 'social gradient of health'. The social gradient of health demonstrates that, in general, the higher a person's socioeconomic position, the healthier they are (AIHW, 2016). Some health inequalities are attributable to external factors and to conditions that are outside the control of the individuals concerned. Inequalities that are avoidable and unjust — health inequities — are often linked to forms of disadvantage such as poverty, discrimination and access to goods and services (Whitehead 1992).

> ***What is the social gradient of health?***
>
> *The poorest of the poor, around the world, have the worst health. Within countries, the evidence shows that in general the lower an individual's socioeconomic position the worse their health. There is a social gradient in health that runs from top to bottom of the socioeconomic spectrum. This is a global phenomenon, seen in low, middle and high income countries. The social gradient in health means that health inequities affect everyone.*
>
> *For example, if you look at under-5 mortality rates by levels of household wealth you see that within counties (sic) the relation between socioeconomic level and health is graded. The poorest have the highest under-5 mortality rates, and people in the second highest quintile of household wealth have higher mortality in their offspring than those in the highest quintile. This is the social gradient in health.*
>
> Quotation taken from 'World Health Organization,'

After words with Michael Marmot, "The Health Gap: The Challenge of an Unequal World" [3:56 mins]

Sir Michael Marmot has made, and continues to make, significant contributions to the evidence of the social gradient and health. To enhance your understanding of this concept, watch this clip with Sir Michael Marmot explaining the relationship between health inequalities and the social gradient.

Required reading

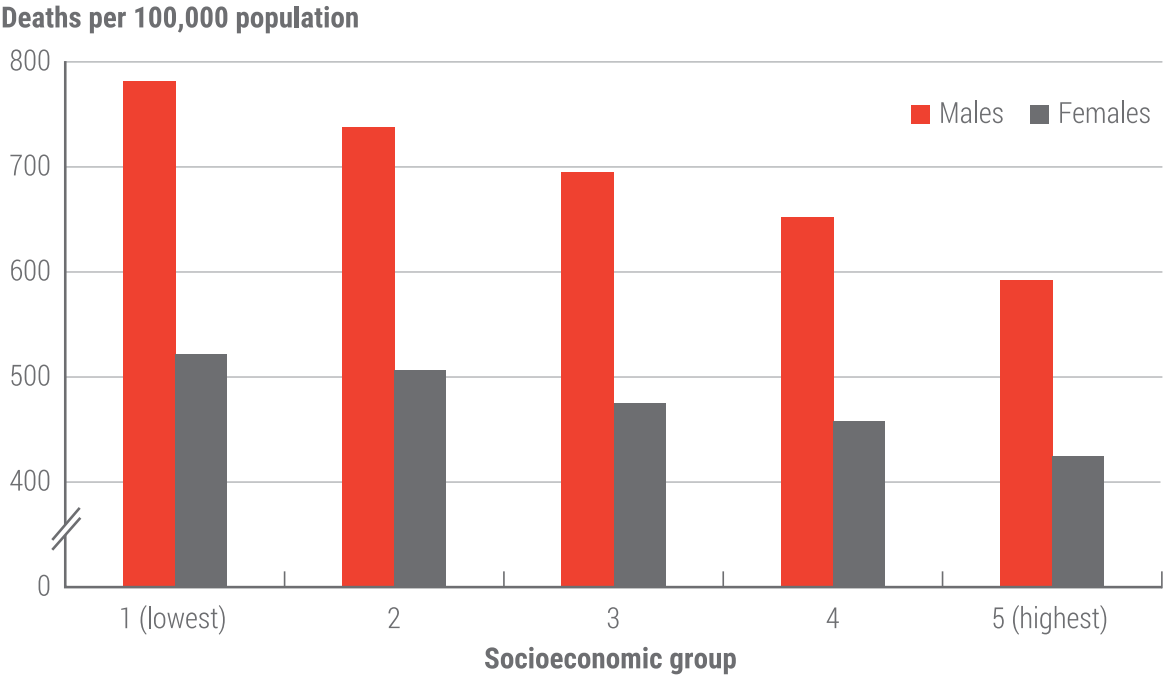
You can learn more about the social gradient from Marmot in this short podcast on inequalities and COVID-19.

Read the below extract from the Australian Institute of Health and Welfare (2016, pp. 134–137) on the social gradient of health in Australia. The full publication can be accessed here.

The social gradient in health

There is clear evidence that health and illness are not distributed equally within the Australian population. Variations in health status generally follow a gradient, with overall health tending to improve with improvements in socioeconomic position (Kawachi et al. 2002).

One example is mortality in the figure below. In 2009–2011, the female mortality rate was 518 deaths per 100 000 population in the lowest socioeconomic areas, compared with 503 in the second group, 472 in the third, 453 in the fourth, and 421 in the highest socioeconomic areas — with a 23% difference in mortality rates between the highest and lowest areas. For males, the effect was similar, with an even greater inequality (33%) between the highest and lowest areas (AIHW 2014d).

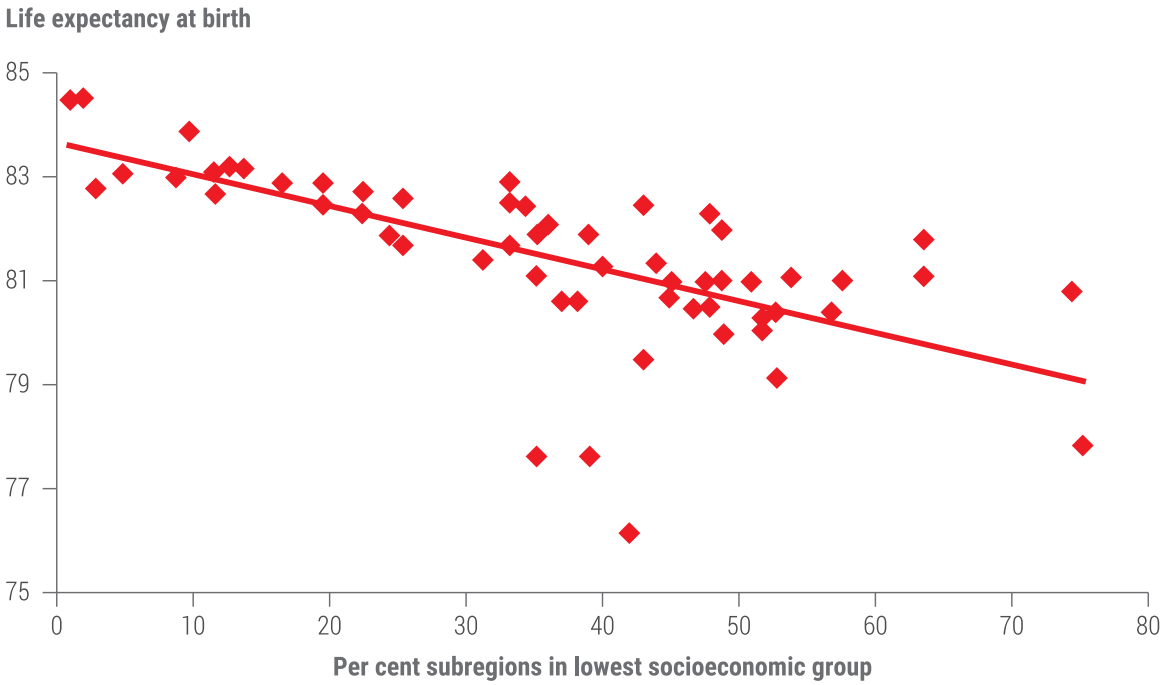


The social gradient in Australian mortality, 2009–2011

Note: Socioeconomic groups are based on the area of residence using the ABS Index of Relative Socio-economic Disadvantage.

Source: AIHW 2014d.

The gradient in mortality affects life expectancy. People living in the lowest socioeconomic areas generally have lower life expectancies (below). In 2009–2011, a baby born in a region where only 10% of the subregions were in the lowest socioeconomic group could, on average, expect to live to 83 years, whereas a baby born in a region where 70% of the subregions were in the lowest socioeconomic group could expect to live to 79 years.

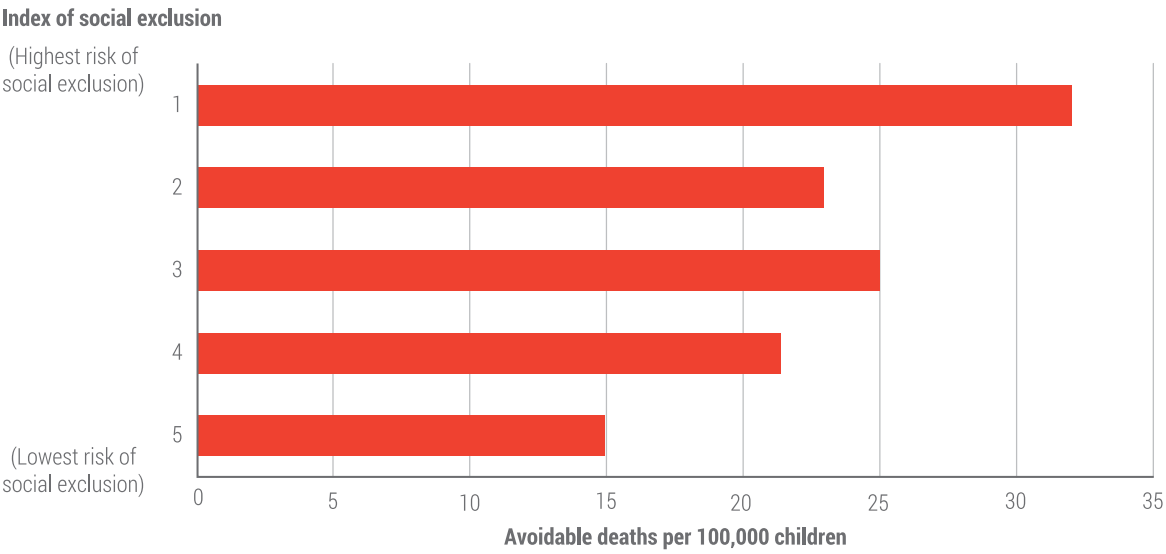


Proportion of health subregions in the lowest socioeconomic group and life expectancy at birth, 2009–2011

Note: Each point represents a Medicare Local administrative health region. These consist of smaller subregions based on ABS Statistical Areas Level 1 (SA1), which were classified using the ABS Index of Relative Socio-economic Disadvantage. The line through the scatterplot is based on regression analysis which has been used to determine the best fit through the observed data.

Source: NHPA 2013, based on ABS Causes of Death and Life Tables 2009–2011.

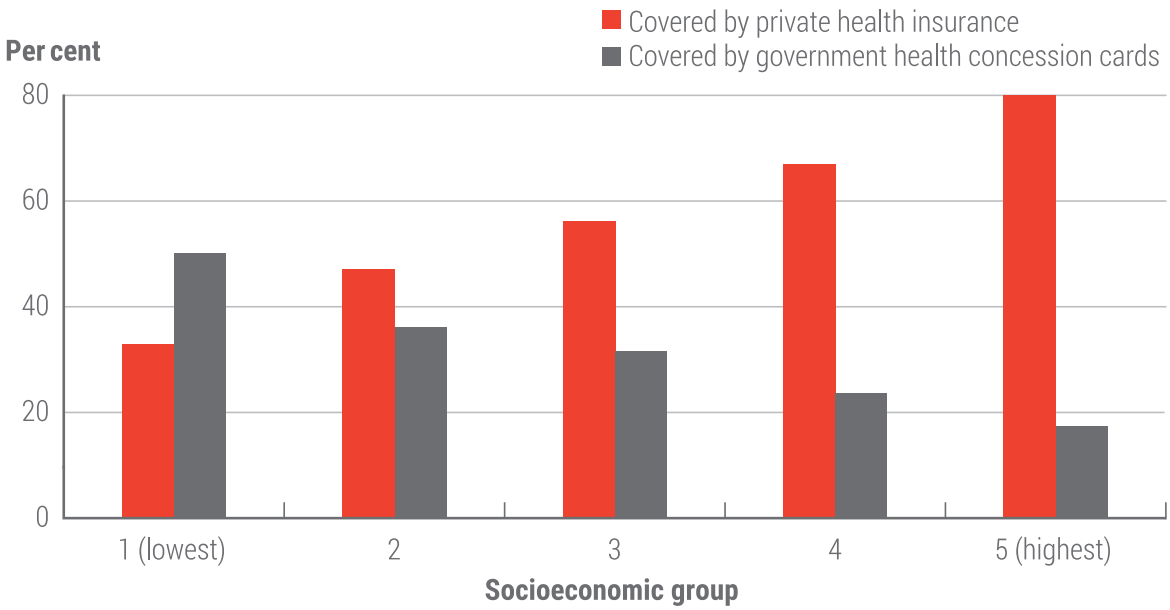
The gradient is apparent even at young ages. The figure below illustrates the relationship between social exclusion and health outcomes among Australian children. Children at higher risk of social exclusion—measured using an index of socioeconomic circumstances, education, connectedness, housing and health service access—had higher rates of avoidable deaths (that is, deaths which were potentially preventable or treatable within the present health system) (AIHW 2014c).



Estimated rate of avoidable deaths of children aged 0–15, by index of social exclusion, 2007

Source: AIHW 2014c.

The social gradient also extends to types of health care coverage (figure below). People living in the lowest socioeconomic areas report much lower rates of private health insurance than those living in the highest socioeconomic areas (33% compared with 80% in 2011–12). Related to this, people living in lower socioeconomic areas were more likely to be covered by other schemes such as government health concession cards, reflecting the greater proportion receiving pensions and other income support in these areas. This pattern is not surprising, given government policy and incentives to encourage people with higher incomes to contribute more to the costs of their care, including through the purchase of private health insurance (ABS 2010).



Coverage with private health insurance and government health concession cards, by socioeconomic group, 2011–12

Source: AIHW analysis of ABS 2011–12 Australian Health Survey.

The social gradient in health can also be seen in differing rates for many health risk factors; in the prevalence of many chronic diseases and conditions; in the need for doctor visits; in hospitalisation; and in the use of other health care services (AIHW 2014a, 2014b, 2015c; De Vogli et al. 2007).

The gradient also exists within population groups, including among Aboriginal and Torres Strait Islander Australians (see 'Chapter 4.2 Social determinants of Indigenous health'), and minority groups such as people from non-English speaking backgrounds and refugees (Shepherd et al. 2012; Wilkinson & Marmot 2003). The social gradient effects can start from birth and persist throughout life, through adulthood and into old age, often extending to the next generation. This tends to entrench differences in health and wellbeing across the population. The gradient is a global phenomenon affecting all countries, regardless of whether they are low-, middle- or high-income countries (CSDH 2008).

Recommended activity: Life expectancy and social gradient

In this activity you will critically reflect on your life expectancy based on your perceived position on the social gradient. You may share your reflection in the following Padlet.

Your task

1. Using the tools provided in Topic 1 and through conducting your own research, determine your approximate life expectancy based on your birth year, sex and location. You may wish to explore ABS, AIHW, Victorian Population health data or your home countries health data sources. Take note about your life expectancy and the tools/sources used.
2. Now consider your annual income and undertake some research into your position on the social gradient based on your income. Where do you think you 'sit' on the social gradient. Are you in one of the higher socioeconomic groups (4 and 5), a middle group (2,3 and 4) or a lower group (1 and 2). You may wish to look up local government area data on income distributions within your area to inform your placement on the social gradient.
3. Write a short 150–200-word critical reflection in the Padlet on how your position within the social gradient might impact on your health and life expectancy. How might this differ to those above/below or at a similar level on the social gradient? Are there any health inequalities or inequalities that are impacting on your life expectancy and health?

4. Post your response to the padlet below.
5. Review your classmates' responses.

Guidelines

- This activity is not graded but is an essential part of your learning. Your submission will be reviewed by your tutor, though you may not receive specific feedback.
- You should spend 20–30 minutes on this activity.

LTU + 67D

Share

2023 PHE5PUH T2 Week 3, Topic 3: Life expectancy and social gradient

In this activity you will critically reflect on your life expectancy based on your perceived position on the social gradient.

Life expectancy and social gradient

Anonymous 7d
Life expectancy and social gradient

Anthea Kofoed

I am a 51 year old woman, living in regional Victoria. According to the ABS my life expectancy is 83.5 years.

The Index of relative Socioeconomic Disadvantage

Required reading

In this article from Marmot (2017), the social gradient in health and its implications for action to improve health and reduce inequalities is discussed. Marmot outlines the evidence that action needs to occur at social level, not simply at the individual level.

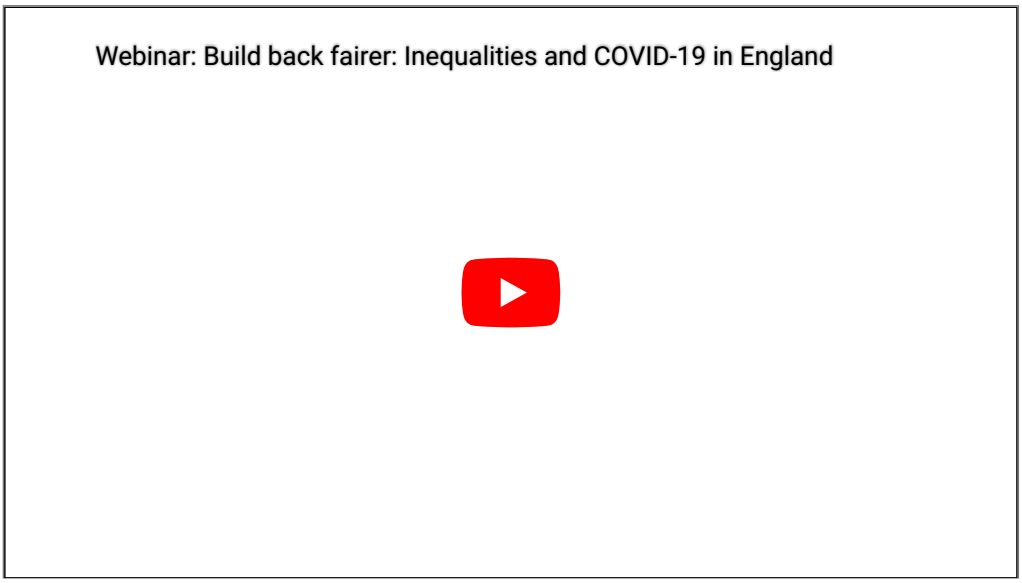
- Marmot, M 2017, 'The health gap: Doctors and the social determinants of health', *Scandinavian Journal of Public Health* , vol. 45, no. 7.

Recently Marmot and his team prepared a report on the COVID-19 pandemic, socioeconomic and health inequalities in England. While this is focused on the experience in England, it is reasonable to anticipate that Australia and other nations will experience widening social and health inequalities as a consequence of the COVID-19 pandemic— this indicates an important role for future public health professionals when addressing the 'causes of the causes' of unjust health outcomes. A summary of the report can be found here. Read the Executive Summary.

- Marmot, M, Allen, J, Goldblatt, P, Herd, E & Morrison, J 2020, *Build Back Fairer: The COVID-19 Marmot Review. The Pandemic, Socioeconomic and Health Inequalities in England,* Institute of Health Equity.

If you have time, you may wish to watch this webinar available here that discusses this report.

COVID-19 [1:35:41 mins]



Required reading

'The health gap' and *'The spirit level'* provide an in-depth examination of the evidence linking inequalities, inequities and the social gradient to health outcomes. Both are available via the La Trobe University Library.

- Marmot, M 2016, *The health gap: The challenge of an unequal world*, Bloomsbury, United States.
- Wilkinson, R & Pickett, K 2009, *The spirit level: Why more equal societies almost always do better,* Allen Lane, London.

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