

## **Australians outlive their peers in high income Anglophone countries by 1-4 years**

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*Lower death rate from drugs/alcohol, screenable cancers, cardiovascular + respiratory diseases*

Australians outlive their peers in 5 high income English speaking countries, including the UK and the US, by between 1 to 4 years, finds an analysis of international longevity data, published in the open access journal **BMJ Open**.

Most of this advantage accrues between the ages of 45 and 84, with death rates from drug and alcohol misuse, screenable/treatable cancers, and cardiovascular and respiratory diseases all lower, the analysis shows.

While high income countries achieved good life expectancy gains during the 20th century, the trends have been much less favourable in the 21st century, even before the COVID-19 pandemic, note the researchers.

Stalled declines in deaths from cardiovascular disease, along with a rising death toll from drug overdoses, mental illness, and neurological disease, are key contributory factors, they explain. And sizeable gaps in life expectancy between the richest and poorest, which are evident in most of these countries, have widened further in recent decades.

While English speaking high income countries have much in common, they also have notable differences, including in their healthcare and welfare systems, inequality, racial and ethnic composition, and history of immigration.

The researchers therefore wanted to know if there were any lifespan differences among Australia, Canada, Ireland, New Zealand, the UK, and the USA, which represent some of the wealthiest economies in the world.

They obtained national life tables from the Human Mortality Database (HMD) for men and women in these countries plus—for context only—Austria, Belgium, Denmark, Finland, France, Germany, Italy, Japan, the Netherlands, Norway, Portugal, Spain, Sweden and Switzerland between 1990 and 2019.

Detailed information on deaths by sex, age, and cause of death were obtained from the World Health Organization Mortality Database for all 6 English speaking countries.

Analysis of the data showed that Australia has been the best performer in life expectancy at birth since the early 1990s, leading its peer countries by 1.26–3.95 years for women and by 0.97–4.88 years for men in 2018.

Specifically, Australia has a 4 to 5 year life expectancy advantage over the USA and a 1 to 2.5 year advantage over Canada, New Zealand, Ireland, and the UK.

For most of the period between 1990 and 2019, Canada had the second highest life expectancy. Most recently, Ireland and New Zealand have matched Canada.

But in every year since 2001, the USA has been the worst performer. And in the most recent decade, the UK generally had the second lowest life expectancy.

Similar trends are observed for life expectancy at age 65, with Australia generally performing the best and the USA the worst, with the USA's poor life expectancy ranking at age 65 emerging more recently.

The gaps in life expectancy at birth between the best and worst performers widened over time. In 1990, Canadian men and women had the highest life expectancies—74 and 80, respectively; American men and Irish women had the lowest—71 and 77, respectively.

The corresponding gaps were 2.38 and 2.91 years. By 2019, these gaps had doubled to 4.75 years for men and increased by 30% for women to 3.80 years between Australia and the USA.

While women in English speaking countries never ranked among the top performers in female life expectancy between 1990 and 2019 in all 20 high income countries, men—with the exception of the USA—typically have ranked in the top half over the past decade.

And out of all these countries, Australian men ranked in the top 4 in all but 1 year between 1990 and 2019. But American men have had the lowest life expectancy since 2005.

The 65–84 age group typically makes the single largest contribution to life expectancy gaps between Australia and the other 5 English speaking high income countries, ranging from 39% in the USA to 78% in Ireland among women, and from 30% in the USA to 100% in Ireland among men.

While Australians have lower rates of death across nearly all ages, most of their life expectancy advantage accrues between ages 45 and 84.

Ischaemic heart disease, other circulatory diseases, cancers, respiratory diseases, mental illness and neurological disease—mostly Alzheimer's disease and related dementias—are key contributors to life expectancy gaps in this age group.

But Australia also tends to have a lower death rate from external causes, including drugs and alcohol, screenable/treatable cancers, cardiovascular disease, and flu/pneumonia.

As to life expectancies within countries, Canada and the USA perform the worst, with 13 US states in the lowest category for men and women. On the other hand, all regions in the UK and Ireland have life expectancies above 81 for women and 76.5 for men.

For both men and women, Australia has the lowest within country inequality, especially at ages above 40, followed by Canada. Among women, inequality tends to be highest in New Zealand, Ireland and the USA; among men, it is highest in New Zealand, the UK, and the USA.

The researchers acknowledge that they couldn't account for differences within local neighbourhoods, and that there may be differences in cause of death coding, particularly at older ages where several conditions may co-exist.

But there are several possible explanations for Australia's top ranking, they suggest, among which are the country's high proportion of people born overseas—nearly 30% in 2018.

A low prevalence of smoking might be another, while public health initiatives around gun ownership and mental health, and its highly rated healthcare system, might also explain Australia's position at the top of the life expectancy league table.

“Australia performs well, but still has room for improvement, particularly in the area of reducing inequalities among its indigenous populations,” and in its rates of obesity, say the researchers.

But they conclude: “Overall, Australia offers a potential model for lower-performing Anglophone countries, such as the USA and UK, to follow to reduce both premature mortality and inequalities in life expectancy.”