

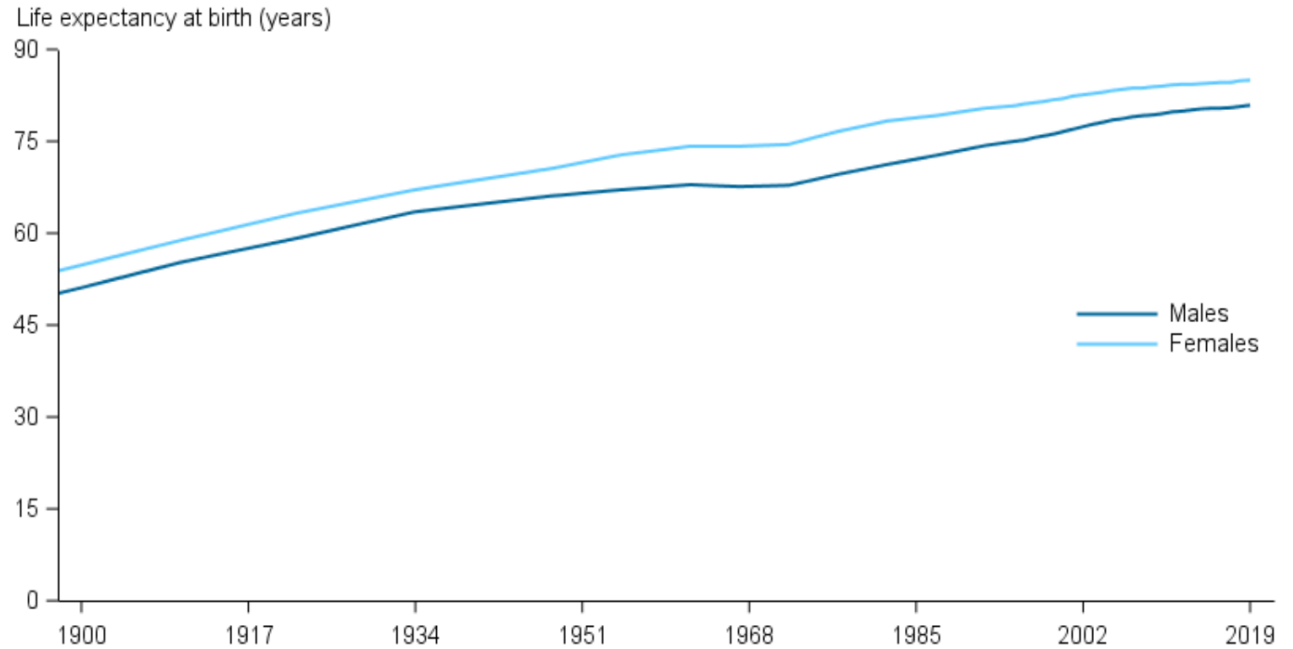
Social inequalities in healthy longevity in Australia

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Living longer



Living longer, healthier?

Increases in life expectancy do not necessarily lead to increasing years of healthy life

- » **Healthy life expectancy** - quantifying the quality of remaining years of life.

Australians are living longer than ever before, but are these additional years lived in good health, or are we simply extending periods of ill health and disability?



Living healthier, equally?

In other high-income contexts, healthy longevity is known to be strongly socially patterned

- » level of healthy life expectancy, and changes over time, differ between more and less advantaged groups

For individuals, families, and societies to benefit from increasing longevity, we need to ensure that gains in health and longevity are equal across the population.



What we know, and what we don't

Estimates of healthy life expectancy by **individual-level measures of socioeconomic position (SEP)** are not readily available.

First national-level analyses of differences in life expectancy by schooling published only in 2021—found a 7.3 year gap between men with tertiary schooling and those with less than year 12 (4.7 years for women) (Welsh et al 2021).

Existing AIHW reports treat later-life health as a fixed characteristic, and may miss differences between groups that arise from different patterns of transitions between health states.

Why it matters

If older individuals are living longer, healthier lives, the societal and budgetary impacts of population ageing may not be as dire as forecasted.

Conversely, if successive generations of older adults are living with a greater burden of health conditions and disability we may outstrip societies' ability to adequately provide services.

Understanding social inequalities is key here—we need to know who is succeeding, and who may be falling behind



Research Questions

- How has healthy longevity changed among older Australians over the past two decades?
- How do life expectancy and healthy life expectancy differ by education attainment, household wealth, and occupation for older Australians?
 - We compare across multiple domains of SEP because different measures of SEP may lead to differential health outcomes.
- Have social inequalities diminished or widened over time?



Data

- The Household, Income and Labor Dynamics in Australia (HILDA) survey: 2001-2020
- **Mortality data** were obtained from deaths identified in the field.
- In 2014, the Hilda sample was matched to **the National Death Index**. Over 19% of the total deaths that had occurred between 2001 and 2013 were obtained from the National Death index only.
- We used **multiple imputation** to address the likely under-reporting of deaths from 2014 and 2020 (STATA MI Chained).

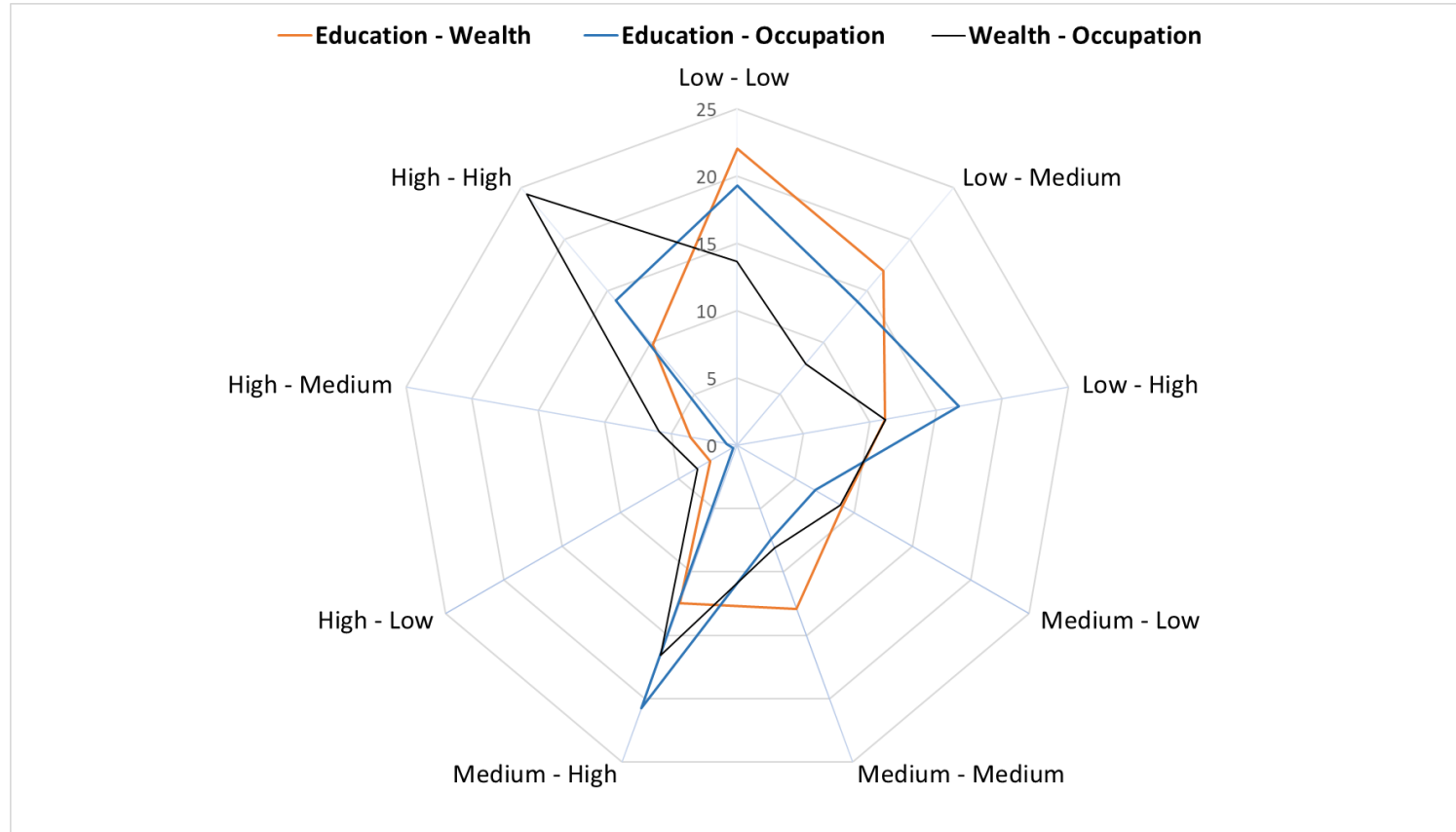


Measures

- Measurement of health: Long-term limiting illnesses (LTLI)
“Do you have any long-term health condition, impairment or disability that restricts you in your everyday activities, and has lasted or is likely to last, for 6 months or more?”
- SEP indicators:
 - **Education attainment:** 3 categories “lower secondary and below”, “upper secondary” and “tertiary”;
 - **Total household wealth:** sum of net financial wealth and non-financial wealth (including housing wealth) less all debts; divided into tertiles.
 - **Occupation:** based on AUSEI06 occupation scale of current main job OR last job if not currently in labor force; divided into 3 categories on the 25th percentile and the median (D'Souza et al.,2005).

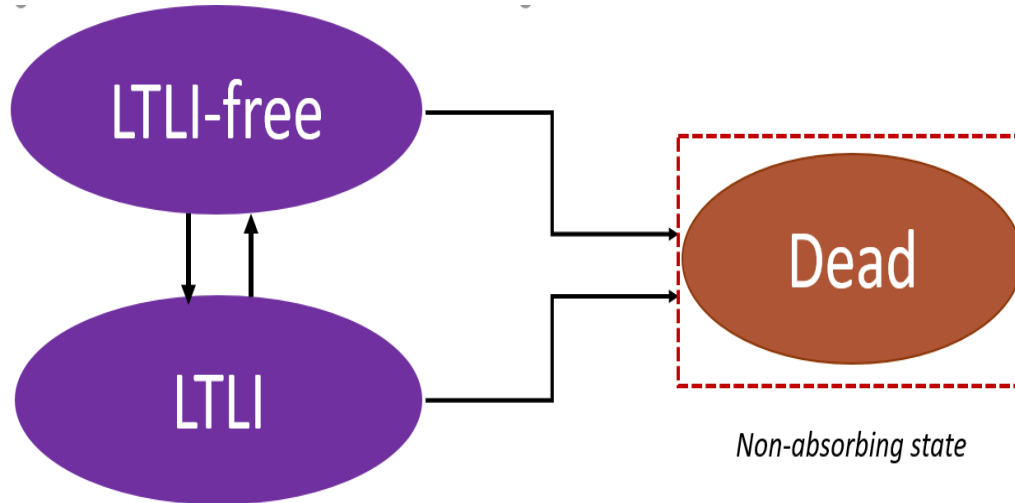


Percentage of Hilda respondents in categories of education, wealth and occupation



Approach

- Life and health expectancies are estimated using a microsimulation-based multistate life table.



Finding 1:

Small increase in total LE between 2000's and 2010's

LTLI-free LE fairly constant at the population level



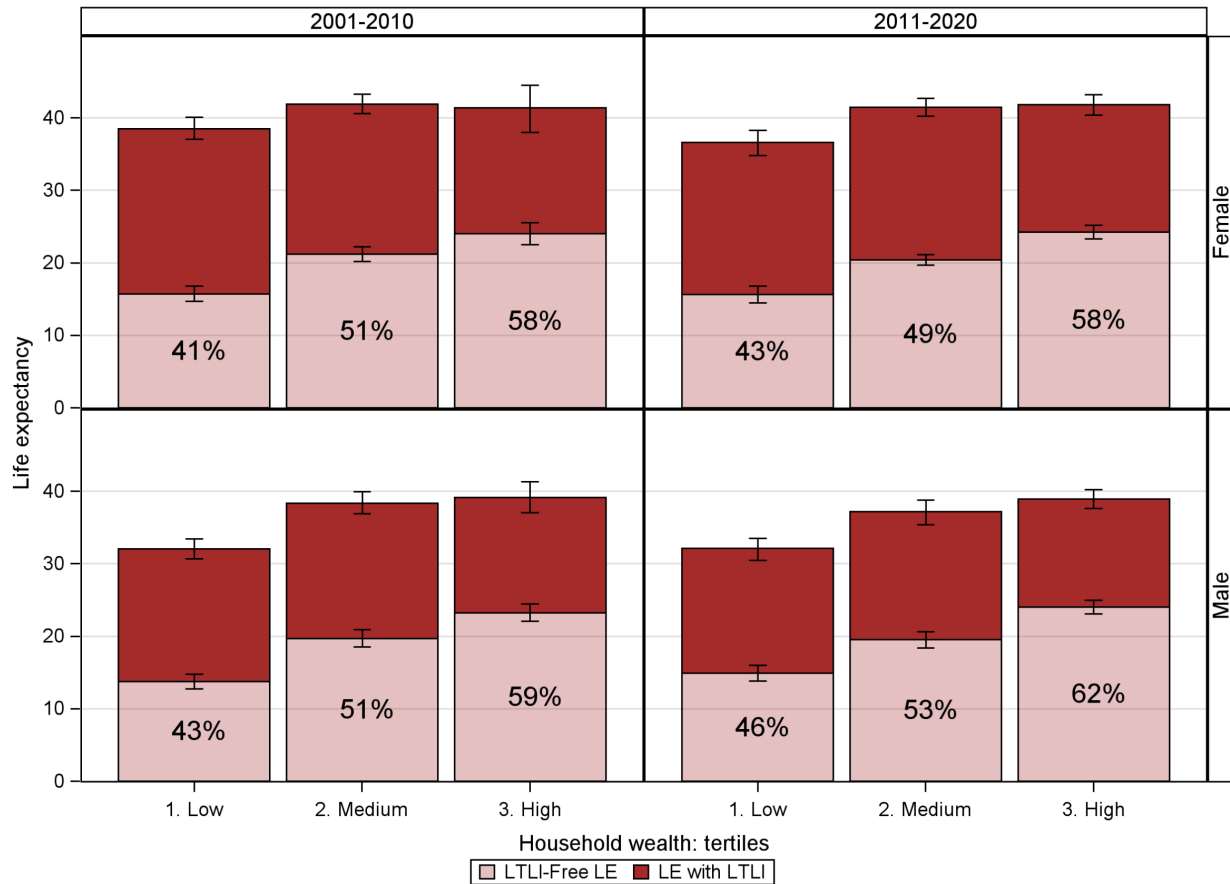
Finding 2:

Wealth

Substantial inequality in healthy longevity by all measures of SEP in Australia

Lives of disadvantaged social groups are shorter and more heavily burdened with LTLI.

Figure 3: Life and LTLI-free life expectancies by wealth at age 45



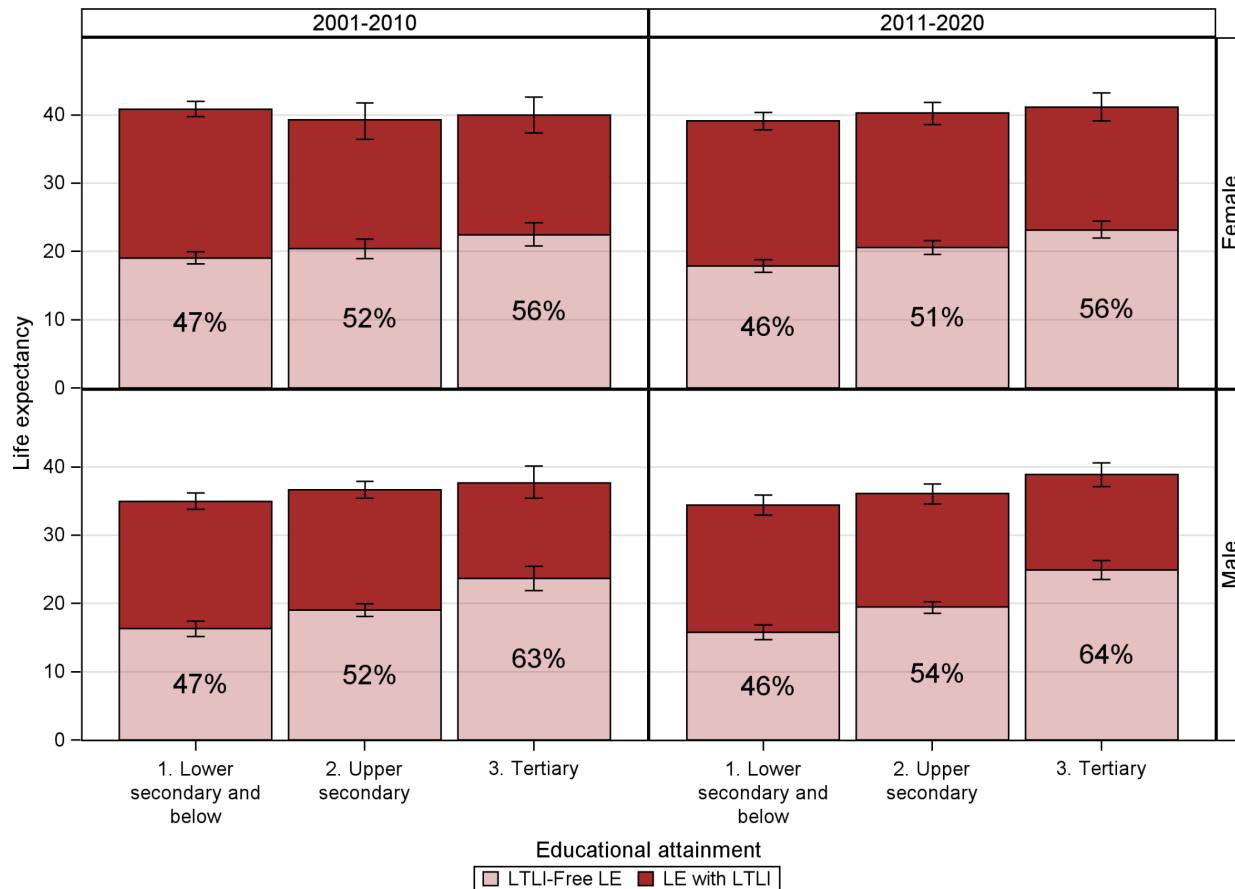
Finding 2:

Education

Substantial inequality in healthy longevity by all measures of SEP in Australia

Lives of disadvantaged social groups are shorter and more heavily burdened with LTLI.

Figure 1: Life and LTLI-free life expectancies by level of education at age 45



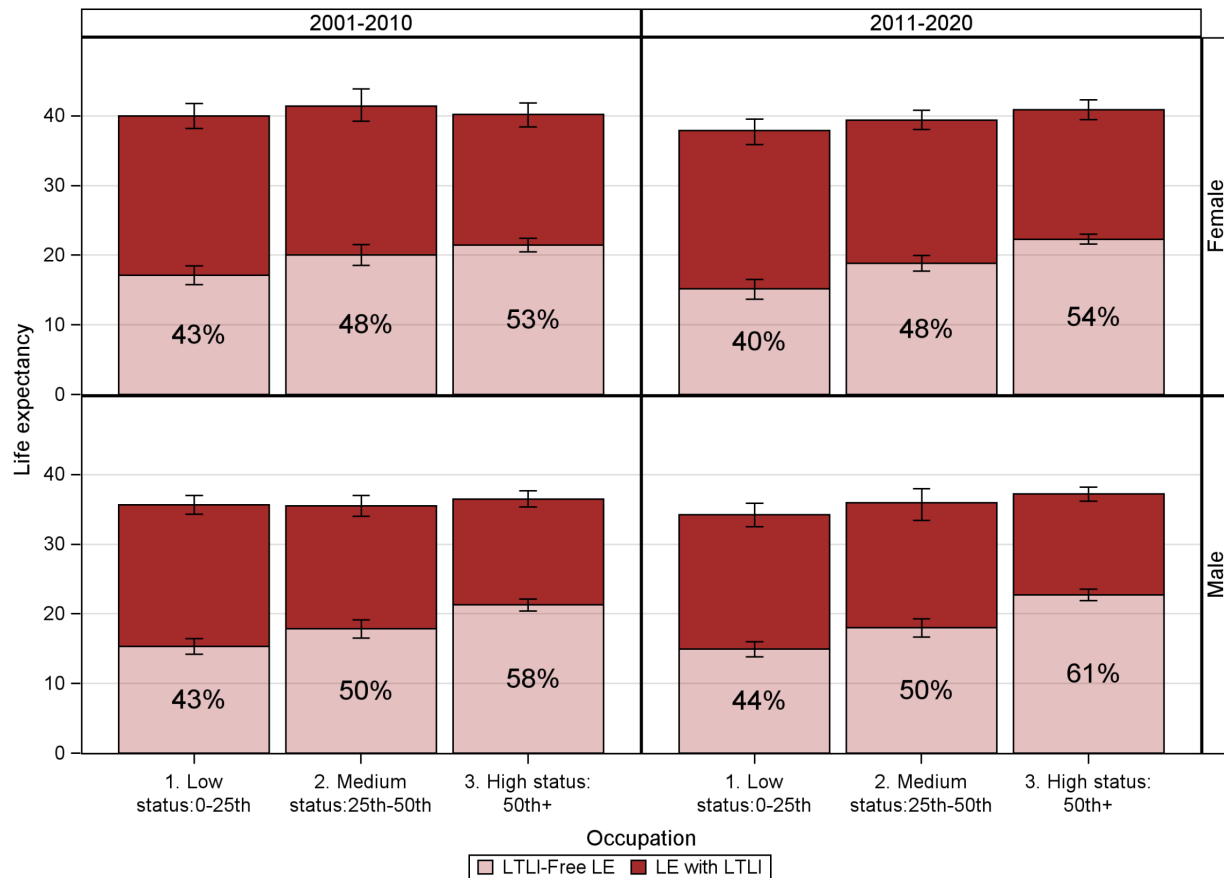
Finding 2:

Occupation

Substantial inequality in healthy longevity by all measures of SEP in Australia

Lives of disadvantaged social groups are shorter and more heavily burdened with LTLI.

Figure 5a: Life and LTLI-free life expectancies by occupation at age 45

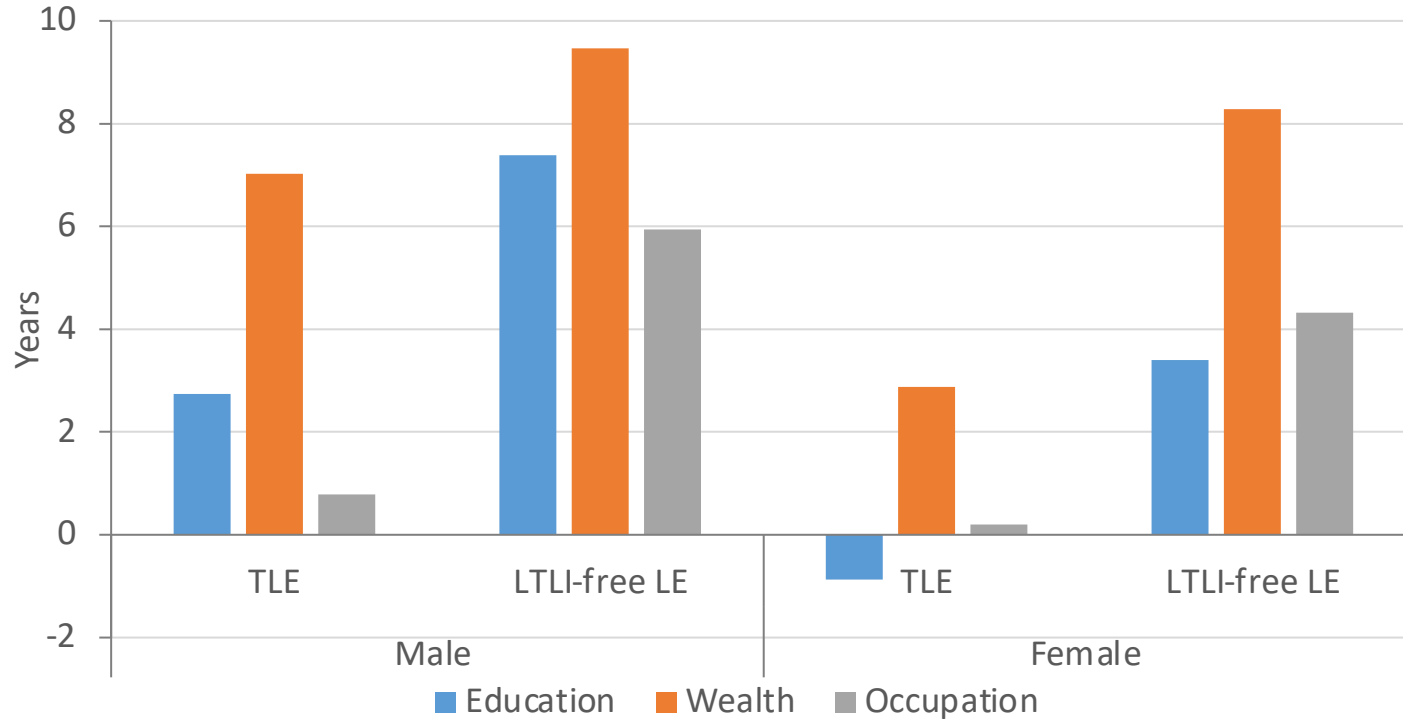


Findings

3. Socioeconomic disadvantage in TLE and LTLE-free LE was largest for wealth.



Differences in TLE and LTLE-free LE between the highest and lowest levels of education, wealth and occupation: 2001-2010

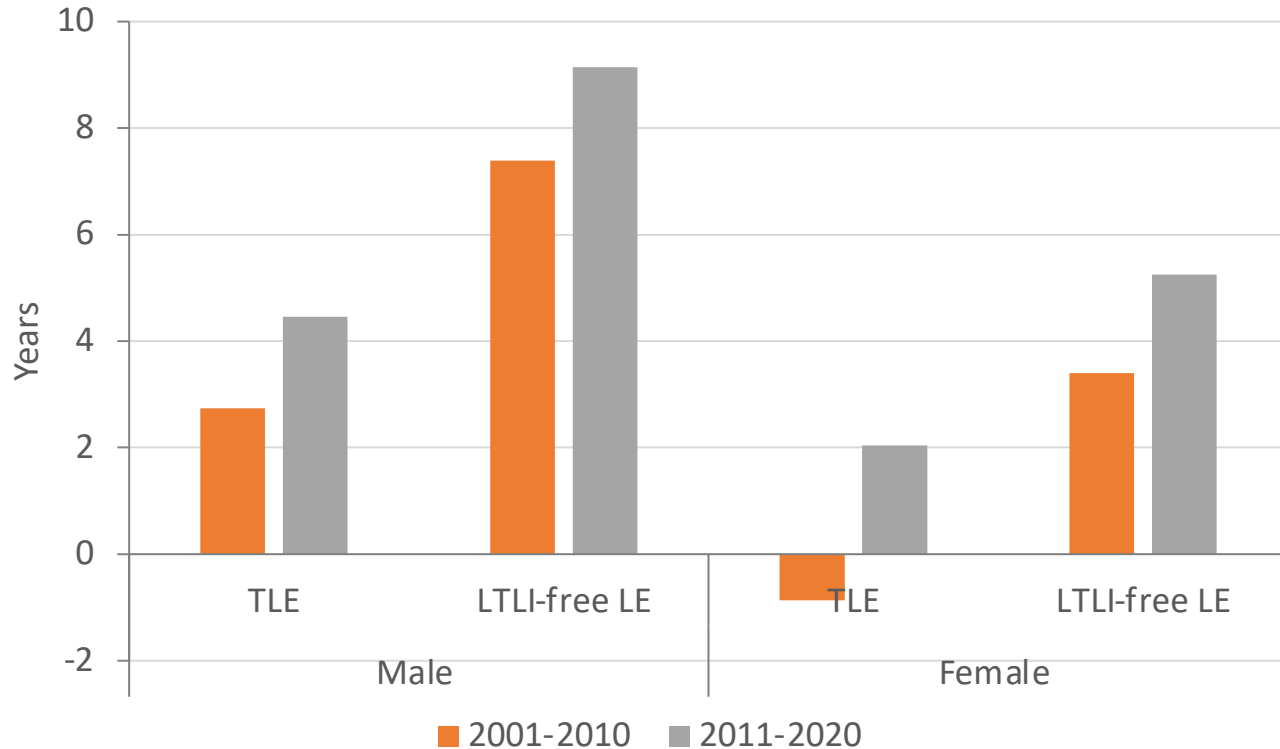


Findings:

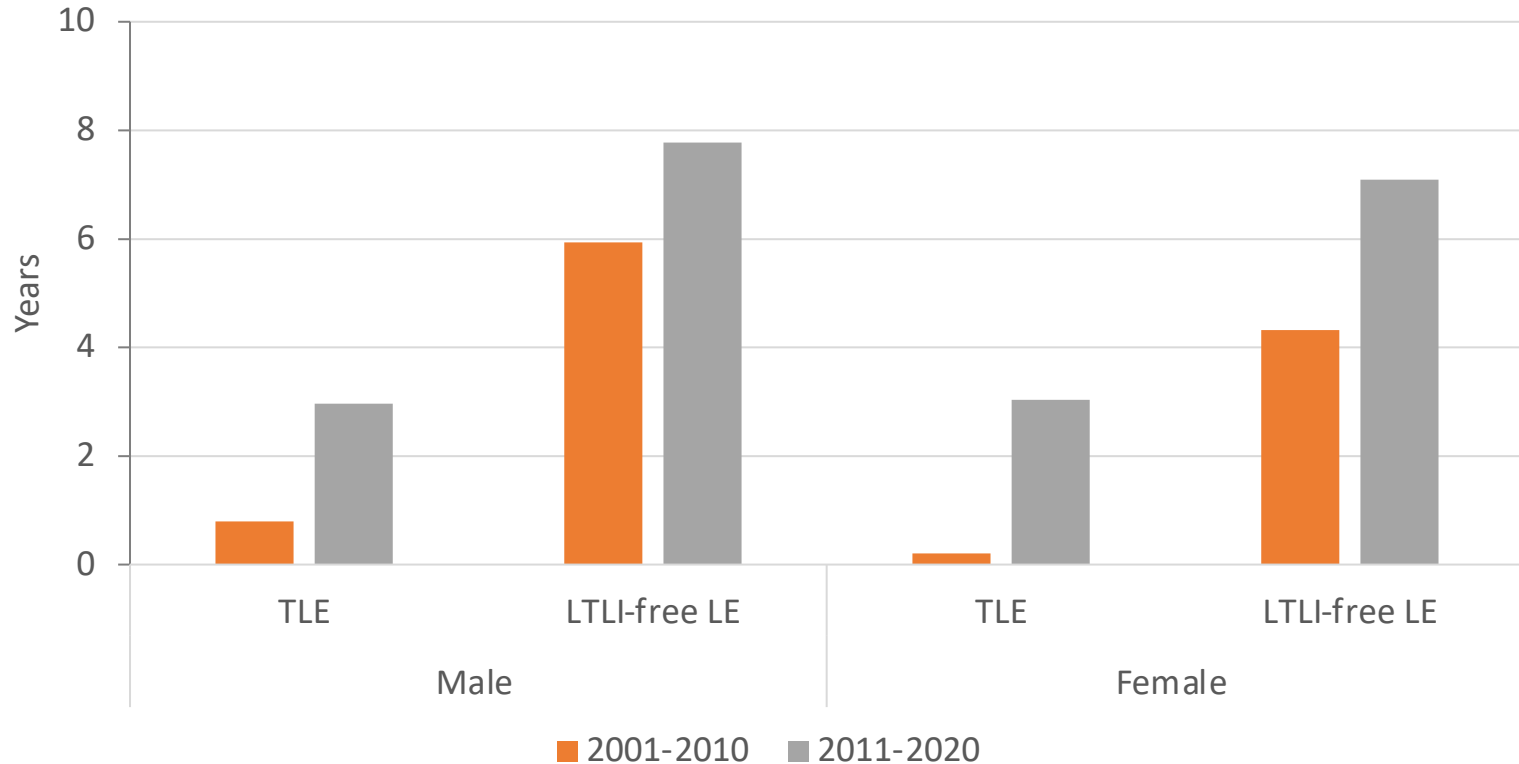
4. Inequalities in healthy longevity in Australia have widened over time, especially education and occupation-based disparities.



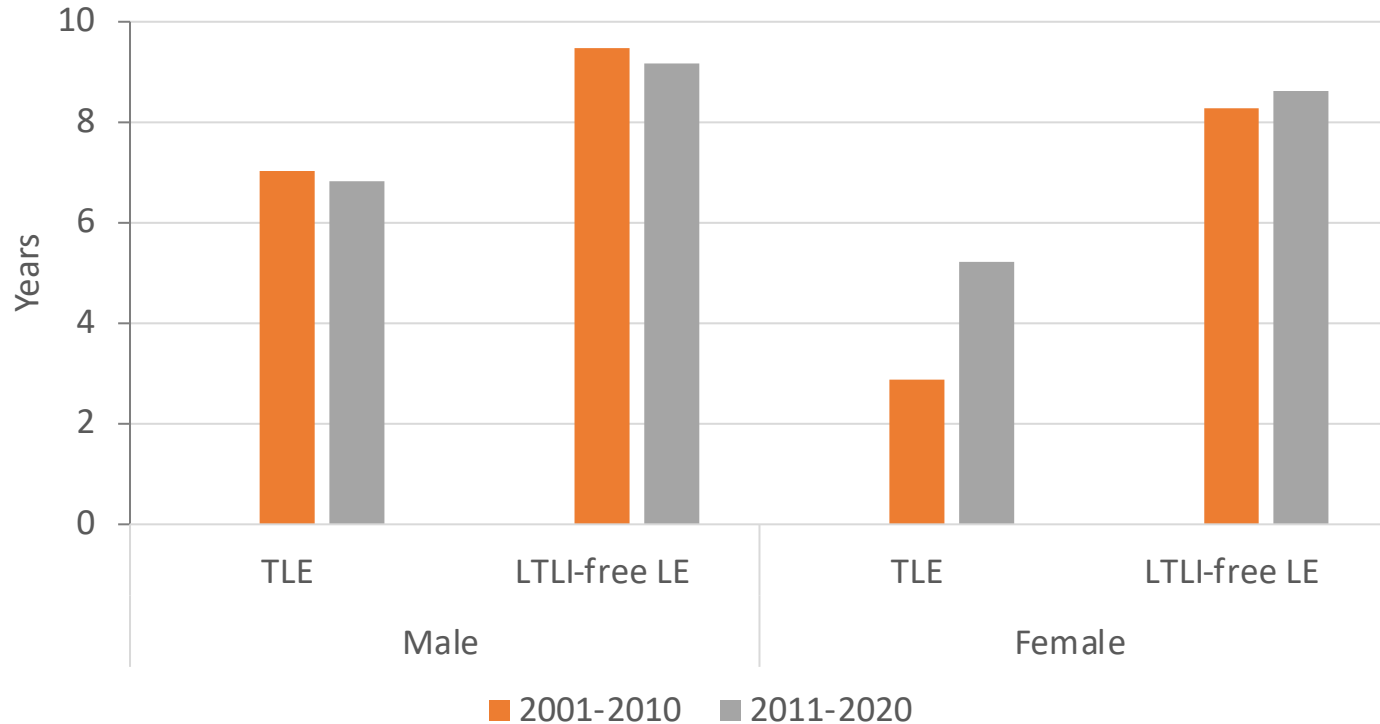
Changes in the differences in TLE and LTLI-free LE between the highest and lowest level of **education** over two periods



Changes in the differences in TLE and LTLI-free LE between the highest and lowest level of **occupation** over two periods



Changes in the differences in TLE and LTLI-free LE between the highest and lowest level of **wealth** over two periods



Implications

At the population-level, trends in healthy longevity among older Australians are pretty positive

However, there is substantial heterogeneity in who lives longer, healthier lives, and who does not

Divergent destinies in healthy longevity by SEP can have substantial impacts for population health

- » Growing social inequalities in mortality and healthy longevity preceded the recent stagnation and decline in US life expectancy (Payne 2022)



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THANK YOU

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