HALTING SURVIVAL IMPROVEMENTS AMONG THE YOUNG POPULATIONS IN HIGH-INCOME ENGLISH-SPEAKING COUNTRIES

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Agenda

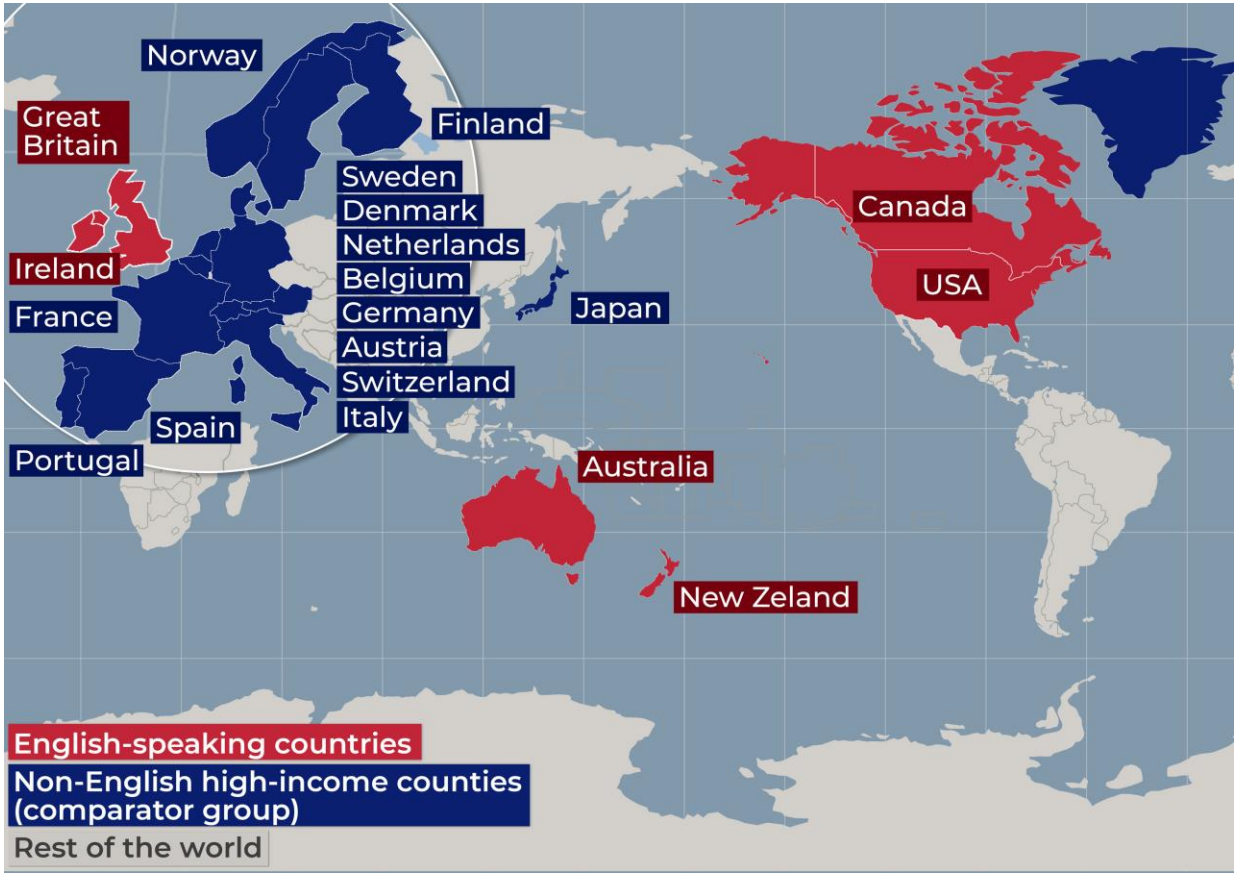
- Background and Motivation for the study
- Geography, Data sources and Methods
- Life expectancy and lifespan disparity trends
- Cause-specific life-years lost
- Cohort survival comparison
- Take-away messages

Background

- The pre-pandemic decade was characterized by the slowdowns in longevity improvements or even mortality reversals in some of the high-income countries which should be considered as a warning sign for both longstanding and emerging health problems
- The two worst affected countries are the UK and the USA, though the magnitude of health losses and the length of non-favourable period are larger in the USA
- Examining the drug overdose mortality in the USA, Jessica Ho (2019) has noticed very similar and troubling patterns of drug-related mortality in other Anglophone countries (namely, Australia and Canada).

Populations under the study:

- English-speaking countries (n=6)
- Comparator group (n=14)



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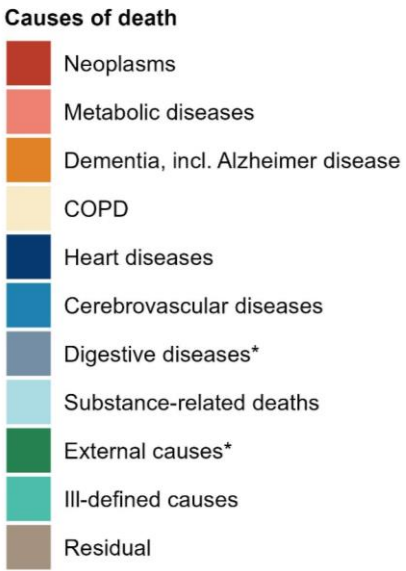
data sources



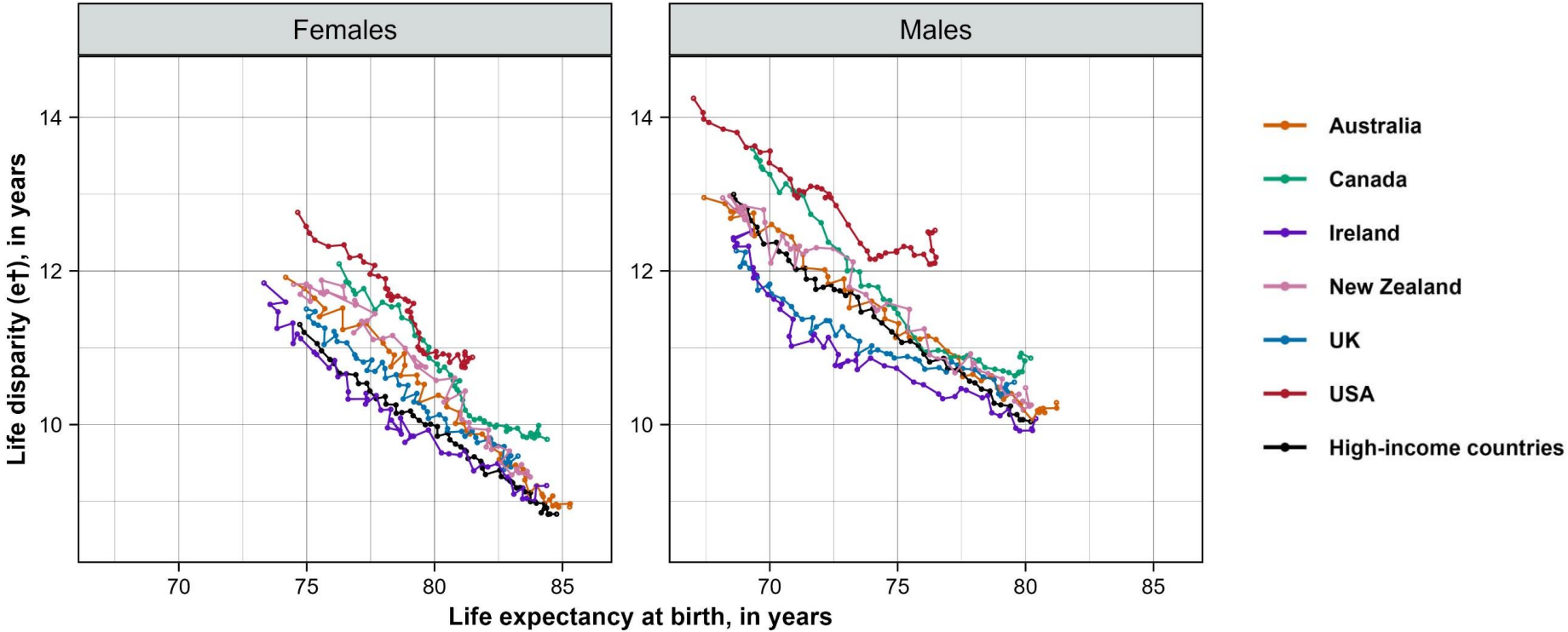
- All-cause mortality analysis:
  - conducted for 1970-2019;
  - based on annual 1-year age- and sex-specific death rates (110+) from the Human Mortality Database (HMD).
- Cause-specific mortality analysis:
  - 11 major causes of deaths are in included in the main analysis;
  - performed for an average of 2017-19;
  - cause-specific shares of deaths come from WHO MD*; central 5-year age-specific death rates (95+) are obtained from HMD.

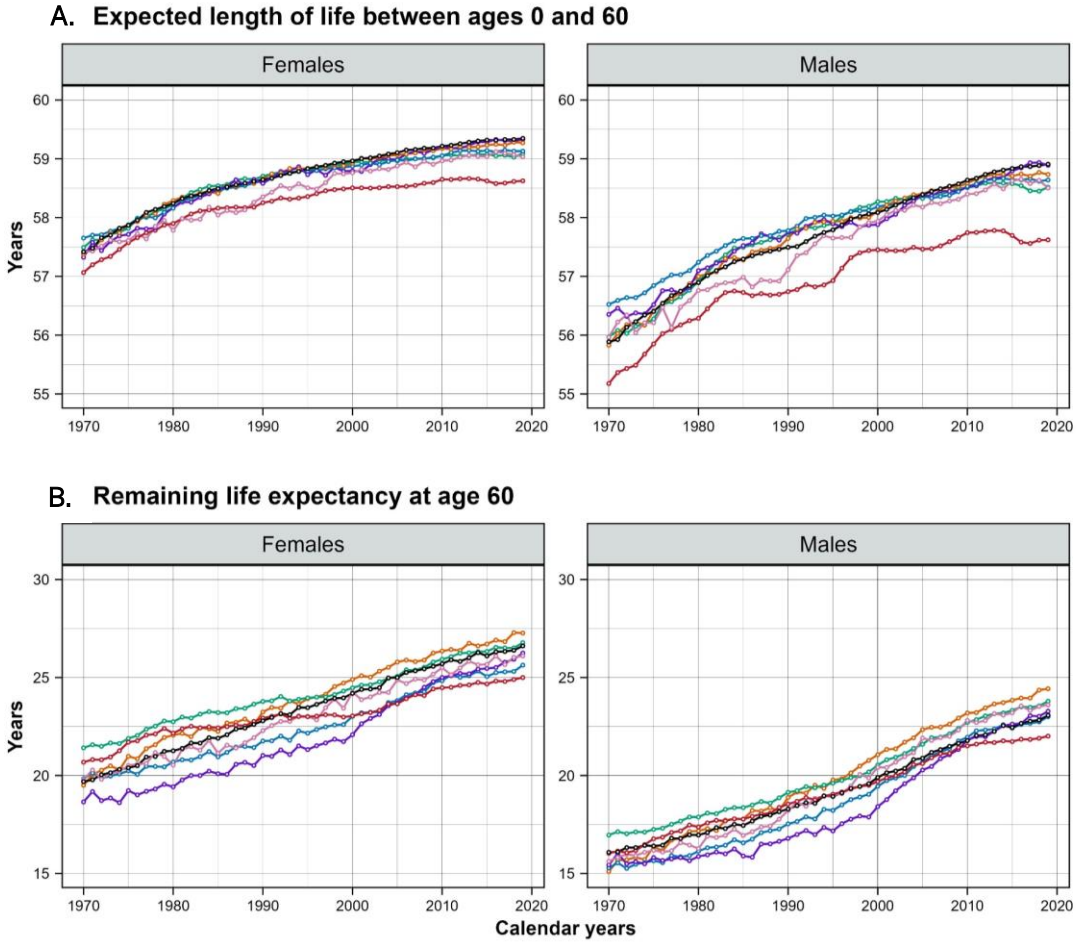
Settings:

methods

- Life tables techniques to estimable:
  - Life expectancy at birth;
  - Expected length of life between ages 0 and 60;
  - Remaining life expectancy at age 60;
  - Lifespan disparity (e-dagger).
- Decomposition analysis to :
  - quantify the contribution of causes of death to the gap in life expectancy between Anglophone and HICs;
  - compare cohort survival (mortality experience of birth cohorts) for Anglophone and HICs.

Life expectancy at birth vs. lifespan disparity, 1970-2019

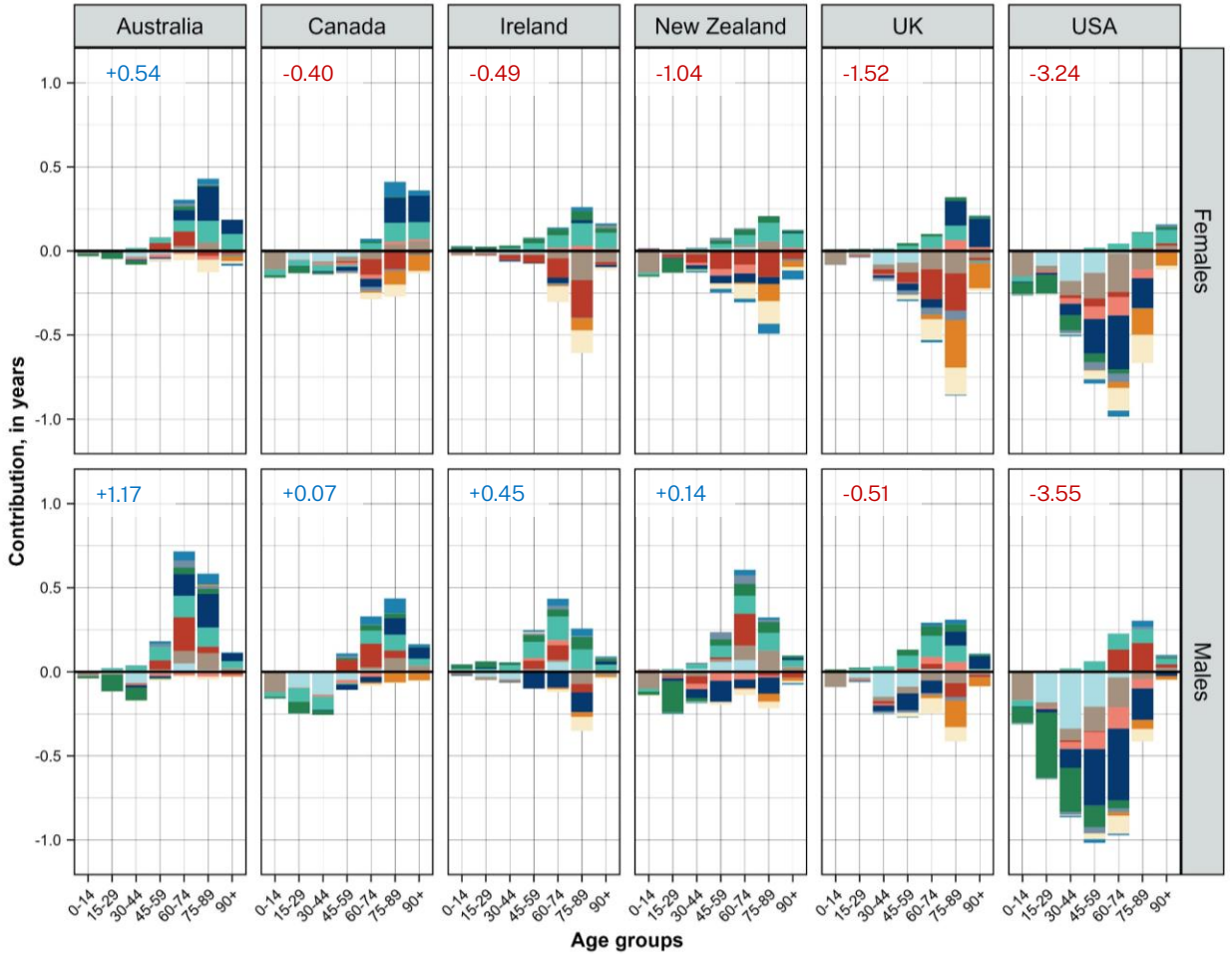




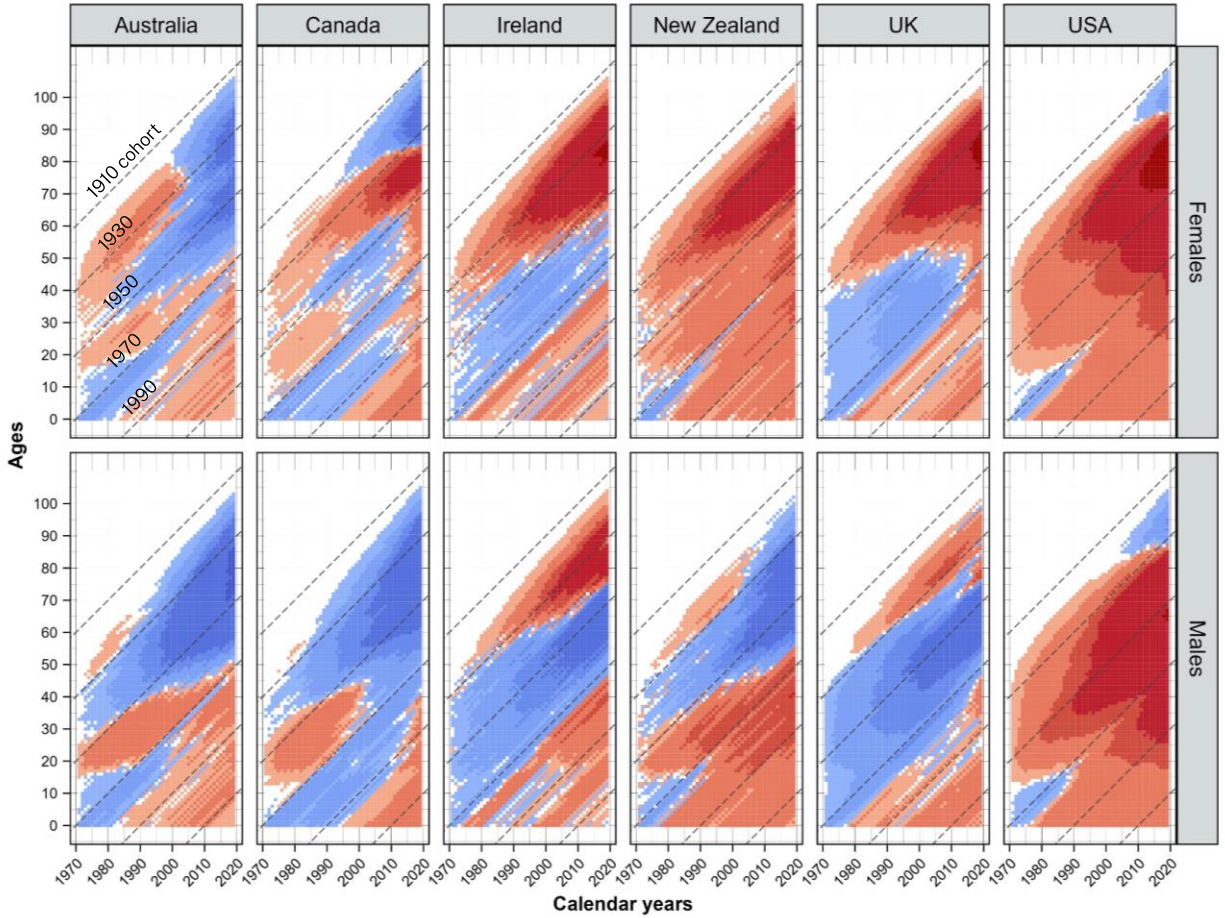
Life expectancy trends, 1970-2019

- Australia
- Canada
- Ireland
- New Zealand
- UK
- USA
- High-income countries

Gaps in life expectancy at birth between Anglophone countries and the comparator group, average for 2017-19



Differences in cohort survival between Anglophone countries and the comparator group



Take-away messages

- Despite an overall progress, longevity improvements have recently slowed down in all Anglophone countries (with an exception of Ireland) due to a tiny or even negative mortality change at young-middle ages;
- Lifespan disparity has also started to go up in the English-speaking countries, particularly in males, as opposed to its further sustained reduction in the comparator group;
- External and substance-related causes of death as well as heart diseases (in males) and cancer (in females) are largely responsible for life expectancy disadvantage of English-speaking countries at young and middle ages;
- On the contrary, old-age mortality is lower in all Anglophone countries among males and in Australia and Canada among females (with an exception of the USA).
- The adjustment for cohort survival improves the position of all Anglophone countries relative to their HIC counterparts, but not for Ireland who has caught up the other countries only in the 2000s.

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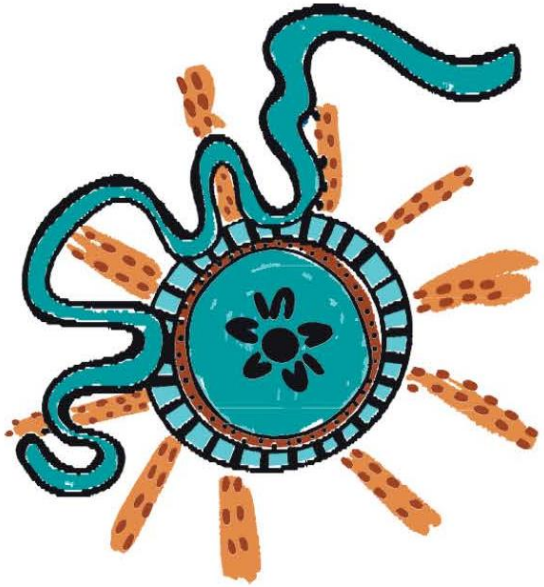

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THANK YOU

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Mean annual changes in life expectancy at birth