



Introduction

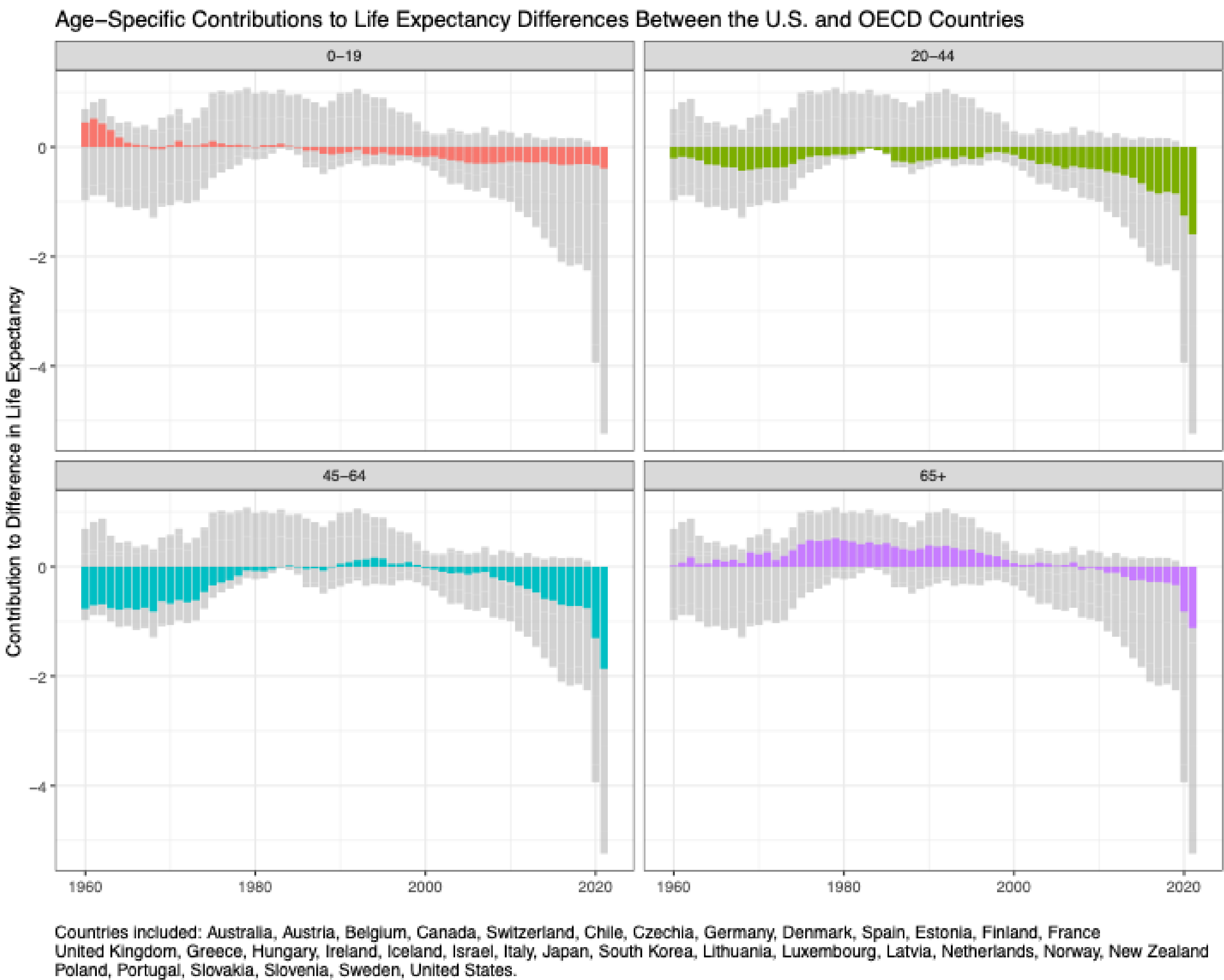
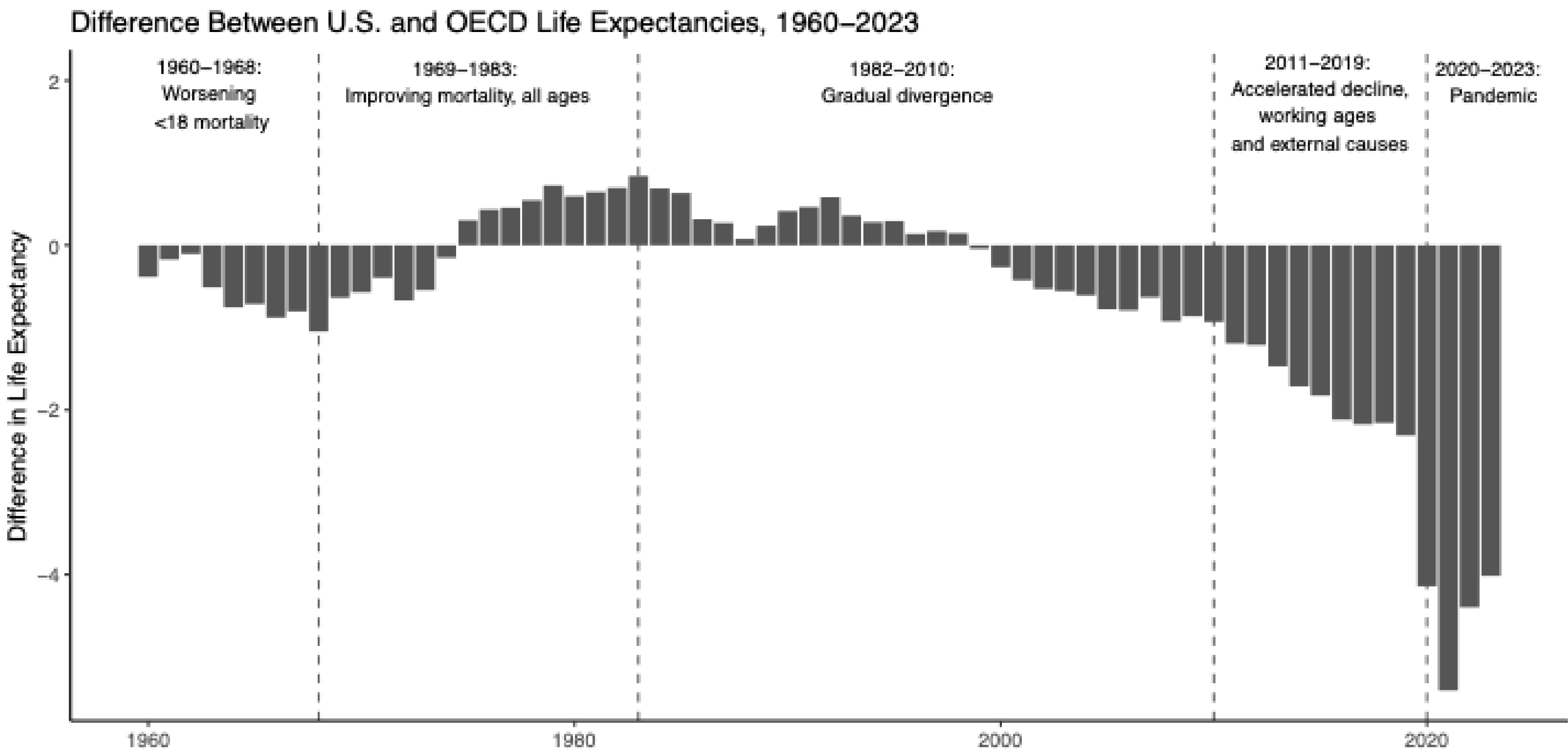
- The United States has recently exhibited lower life expectancy and higher mortality rates than other high-GDP peer countries around the world.
- It is still unclear 1) when the U.S. began to diverge from peer-country trends, and 2) how age-specific and cause-specific mortality variation have contributed to this phenomenon.
- This study decomposes life expectancy differences between the U.S. and peer countries by age and cause of death to better understand period trends leading to the U.S. divergence.**

Background

- The United States spends more on on health care than any country in the world, yet it consistently experiences lower or reduced health outcomes that diverge from trends in other peer countries.
- Much of the research has focused on the period beginning in 2014, when U.S. life expectancy declined for the first time in decades.
- However, relative comparisons suggest the “divergence” from other high-GDP countries may have begun decades prior.
- Recent studies have pointed to heart disease mortality among older populations and external causes (including drug overdose, motor vehicle fatalities, and gun-related deaths) among younger populations to explain contemporary patterns.
- Examining longer-term trajectories can shed light on possible policy contexts that have affected different age groups and causes.

Methods

- Data:** Life table data were obtained from the Human Mortality Database for 34 countries from 1960-2022.
- Sample:** The United States was compared to 34 member countries of the Organization for Economic Cooperation and Development (OECD) available in the HMD data.
- Analysis:** Stepwise replacement decomposition was used to assess the contributions of age-specific mortality and cause-specific mortality to overall differences in life expectancy between the U.S. and the average of OECD comparison countries.



Cause-Specific Contributions to U.S. Life Expectancy Trends

Cause of Death	General Trend
Circulatory Diseases	Initial U.S. advantage that has diminished, affecting older-age mortality
Cancers	Relative U.S. advantage
External Causes	Large U.S. divergence , driving working-age mortality
Respiratory Diseases	U.S. advantage in 1980s, general decline over time, large divergence due to Covid-19
Other Causes	Gradual divergence to relative U.S. disadvantage for nervous system diseases and other causes of death

Findings and Conclusions

- The U.S. has experienced fluctuations in relative life expectancy and mortality trends, with a growing divergence since the 1980s
- Working age adults have experienced prior periods of relatively poor mortality, which accelerated in the 2000s
- The U.S. had an advantage in heart disease mortality that has steadily declined, which accounts for a high number of older-age deaths
- The U.S. has become more of an outlier in external causes, which account for fewer total deaths but occur earlier in the lifespan
- The U.S. had higher rates of Covid-19 mortality, but the pandemic also accelerated trends in other causes of death.

Policy Implications

- A fuller historical perspective of international life expectancy trends can facilitate analysis of policy differences across countries and over time.
- Decomposition can highlight different policy drivers, both related to health care and other economic and social conditions
- Trends in working-age mortality and deaths from external causes implicate policies outside of the health care system
- Future research should compare policy changes with age-specific and cause-specific trends, as well as further decomposition by race, socioeconomic status, or state