Stalling life expectancy and increased mortality in working ages deserve urgent attention

See Articles page e575

Nearly a decade has passed since the landmark Marmot review,[1] outlining the scale of inequalities in health across England while urging action on the social determinants of health. Despite the clear policy agenda laid out, progress has been poor. The stalling, and in some cases falling, of life expectancy is a crisis, the causes of which are heatedly debated. In the latest release from the Office for National Statistics (ONS),[2] evidence from Public Health England that points to the negative contribution of mortality in particular age groups (eg, 40–49, and ≥90 years) and causes of death (eg, dementia and Alzheimer's disease) is proffered as an explanation. Beyond these government bodies, opinions vary. The effect of austerity and associated budgets are strong contenders,[3,4] although international parallels in the experiences of the UK possibly weaken arguments as to any significant causal role played by austerity.[5] For infant mortality, however, clear evidence exists that austerity is having an effect.[6]

In *The Lancet Public Health,* David Leon and colleagues[7] provide a telling contribution to these debates, particularly in unpacking what is unique about the UK relative to other high-income countries. Although the UK is not alone in experiencing stalling life expectancy, nor in enduring austerity, the country does fare amongst the worst in health outcomes. Indeed, data from the ONS show lower improvements in life expectancy between 2011 and 2017 for the UK than for many OECD countries.[2] Using a selection of high-income countries, Leon and colleagues compare changing life expectancy and mortality rates for England and Wales relative to their peers (eg, similarly high-income countries), drawing out three striking findings: the deteriorating life expectancy of women, diverging mortality rates for all adult ages, and a pattern of excess mortality for both sexes aged 25–50 years from the mid-2000s.

In England and Wales, female life expectancy for those living in the most deprived areas has not only stalled, but reversed. The backdrop to this widening inequality within women is, as Leon and colleagues show, the poor performance of female life expectancy relative to that of similarly high-income countries since the mid-1970s. Smoking is emphasised in explaining this female disadvantage, as well as contributing to the increasingly divergent mortality rates relative to the comparator countries examined. Finally, the authors highlight an emergence in excess mortality for those aged 25–50 years since the mid-2000s, particularly for men. This finding contrasts with previous decades in which mortality rates in people younger than 40 years were lower than in their comparator countries. Evidence from Scotland also points to worsening outcomes for those aged 35–49 years (and those aged ≥90 years), emphasising the increased mortality from drug-related deaths.[8] Investigating whether health inequalities (geographical or sociodemographic) are greater in midlife than at other ages is a developing research avenue, assessing various causes of death[9] and self-reported health. Examining neighbourhood effects over the life course suggests that where you have been and are currently living underpins these developing inequalities.[11] The picking apart of mortality by age group and cause by Leon and colleagues is a key contribution to the evidence base.

When explaining their findings, the authors consider the sorts of international parallels outlined by Raleigh,[5] similarly arguing that the plateauing of life expectancy in the UK and many of the comparator countries implies that more is at play than fiscal restraint in health-care and social-care spending. Yet, the socially determined nature of health means we must look beyond health and social care budgets when questioning the effect of austerity, particularly when examining patterns of excess mortality among working ages. How might a previous emergence of excess mortality in those working ages create a unique context within which the effect of austerity might operate differently? Work must be done in this area, especially if, as Leon and colleagues suggest, further gains in life expectancy are to be found. Indeed, the authors' concluding concern as to whether sufficient environmental or political stability exists to support such gains only serves to underline the importance of further research into the drivers of faltering life expectancy.

*Frances Darlington-Pollock, Paul Norman
Geography and Planning, University of Liverpool, Liverpool L69 7ZT, UK (FD-P); and Department of Geography, University of Leeds, Leeds, UK (PN)
f.darlington-pollock@liverpool.ac.uk

We declare no competing interests.

1 Marmot M. Fair society, health lives: the Marmot Review: strategic review of health inequalities in England post-2010. London, UK: Institute of Health Equity, 2010.
2 ONS. National life tables, UK: 2016–2018. Statistical Bulletin. Office for National Statistics. 2019. https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/lifeexpectancies/bulletins/nationallifetablesunitedkingdom/2016to2018 (accessed Sept 27, 2019).
3 Ruckert, A, Labonté R. Health inequities in the age of austerity: the need for social protection policies. *Soc Sci Med* 2017; **187:** 306–11.
4 Hiam L, Harrison D, McKee M, Dorling D. Why is life expectancy in England and Wales 'stalling'? *J Epidemiol Community Health* 2018; **72:** 359–60.
5 Raleigh VS. Stalling life expectancy in the UK. *BMJ* 2018; **362:** k4050.
6 Taylor-Robinson D, Lai E, Wickham S, et al. Assessing the impact of rising child poverty on the unprecedented rise in infant mortality in England, 2000–2017: time trend analysis. *BMJ Open* 2019; **9:** e029424
7 Leon DA, Jdanov DA, Shkolnikov VM. Trends in life expectancy and age-specific mortality in England and Wales, 1970–2016, in comparison with a set of 22 high-income countries: an analysis of vital statistics data. *Lancet Public Health* 2019; **4:** e575–82.
8 Ramsay J, Minton J, Fischbacher C, et al. How have changes in death by case and age group contributed to the recent stalling of life expectancy gains in Scotland? Comparative decomposition analysis of mortality data, 2000–02 to 2015–17. *SocArXiv* 2019; published online July 15. DOI.10.31235/osf.io/q8rme.
9 Green M. The equalisation hypothesis and changes in geographical inequalities of age based mortality in England, 2002–2004 to 2008–2010. *Soc Sci Med* 2013 **87:** 93–98.
10 Norman P, Boyle P. Are health inequalities between differently deprived areas evident at different ages? A longitudinal study of census records in England and Wales, 1991–2001. *Health Place* 2014; **26:** 88–93.
11 Jivraj S, Norman P, Nicholas O, Murray E. Are there sensitive neighbourhood effect periods during the life course on midlife health and wellbeing? *Health Place* 2019; **57:** 147–56.