

Widening rich-poor mortality gap, says Longevity Science Panel

16 February 2018: New research from the Longevity Science Panel (LSP) shows life expectancy diverging between England's wealthiest and poorest neighbourhoods since 2001. This widening gap in outcomes applies to children born today and to people already in older age.

A boy born in one of the most advantaged 20% of neighbourhoods in 2015 can now expect to outlive his counterpart, born in one of the least advantaged 20% of neighbourhoods, by 8.4 years. In 2001, that gap was 7.2 years. For girls, the difference has risen from 5 years to 5.8 years over the same period.

A sixty-year-old man living in the most advantaged 20% of neighbourhoods could expect to live 4.1 years longer than his counterpart from the least advantaged 20% in 2001, increasing to 5.0 years longer in 2015. A sixty-year-old women living in the most advantaged 20% of neighbourhoods could expect to live 3.1 years longer than her counterpart in the least advantaged 20% in 2001, increasing to 4.2 years longer in 2015.

Death rates for people aged 60-89 improved for all groups between 2001 and 2015. However, the improvement was greatest for the best-off. The most advantaged fifth of older men experienced a reduction in death rates of 32%, compared with 20% for the least advantaged fifth. Women in this age group experienced a 29% fall in death rates for the most advantaged fifth, and 11% for the least advantaged fifth.

Differing improvement rates meant that by 2015, men aged 60-89 from the least advantaged fifth of the country were 80% more likely to die in any given year than those from the most advantaged fifth. This figure has climbed from 52% in 2001. The equivalent figures for women are 44% in 2001 and 81% in 2015.

The LSP's analysis shows that, of the many factors comprising the Index of Multiple Deprivation, income levels have the most powerful influence over neighbourhood death rates.

Commenting on the research, LSP's Dame Karen Dunnell:

“Dying earlier if you are poor is the most unfair outcome of all. So we should all be concerned about the growing divergence in rich-poor life expectancy. To reduce the risk of further widening, we need better understanding of the precise causes, followed by co-ordinated policy initiatives across health, work, welfare, pension and housing to improve outcomes for all.”

Ends

Notes to Editors

The Longevity Science Panel, LSP, was set up by Legal & General to explore the impact that a range of factors may have on future life expectancy in the UK. This includes the drivers that are enhancing life expectancy, for example, medical advances and social change, as well as the inhibitors, such as aspects of lifestyle and delays in the development of treatments. The panel is chaired by Dame Karen Dunnell and also consist of Sir John Pattison, Sir Colin Blakemore, Professor Klim McPherson and Professor Steven Haberman.

Mortality trends of people in different socio-economic circumstances in England.

The Longevity Science Panel (LSP) has reviewed mortality trends of men and women in England, in different socio-economic circumstances. They conclude that the rich-poor gap in mortality at older ages has persisted (Figures 1 and 2) and even widened (Figures 3 and 4) between 2001 and 2015. This finding is in agreement with LSP's previous report, which predicted that the powerful forces of socio-economic and behavioural factors that divide people would lead to a continuing gap in death rates of people in different socio-economic groups ¹. The results of the new study are consistent with other published research ². Based on the emerging evidence, the Panel recommends that the socio-economic circumstances of the elderly should be considered when forecasting future life expectancy or mortality trends for the purposes of public policy and of commercial decisions for the UK's rapidly ageing population.

Figure 1: Mortality rates of males age 60-89 in England: deaths per 100 population, standardised to population distribution of European Standard Population 2013. ³

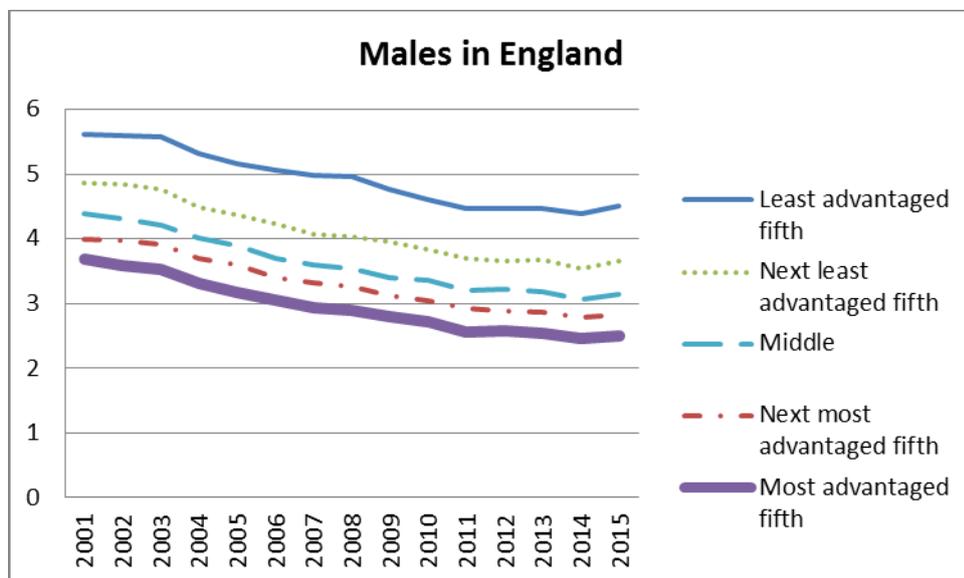
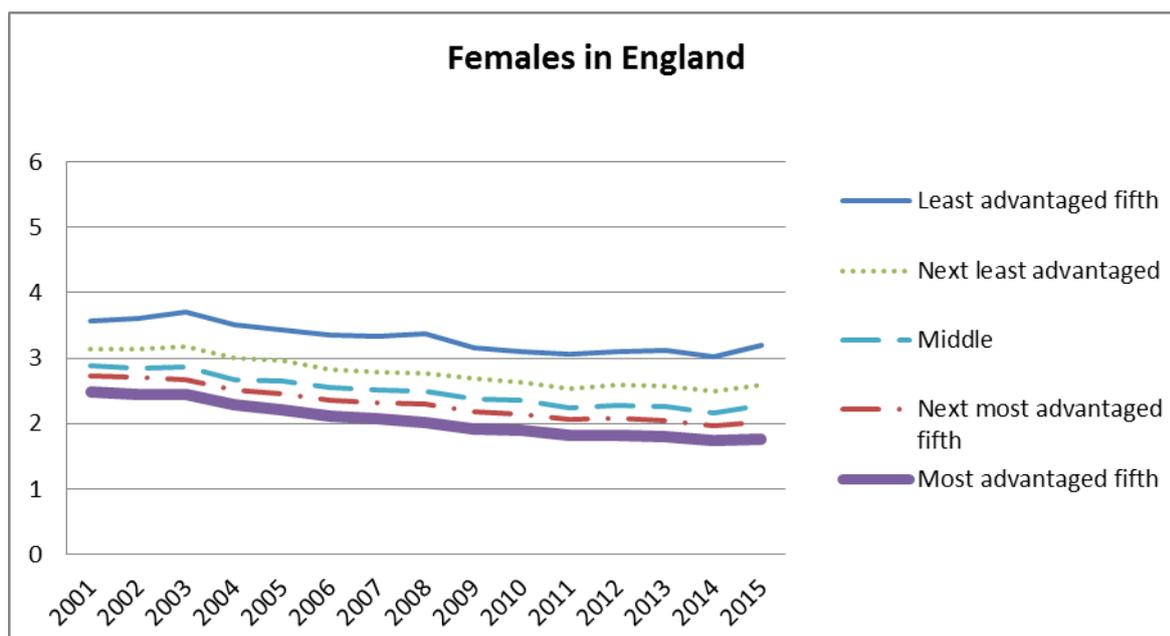


Figure 2: Mortality rates of females age 60-89 in England: deaths per 100 population, standardised to population distribution of European Standard Population 2013.



Widening rich-poor gap in mortality

This study is based on the Index of Multiple Deprivation (IMD), which divides England into about nearly 33,000 residential areas with different levels of affluence. The average number of people in each of these neighbourhoods is about 1,700 people ⁴. The report highlights that the relative difference in death rates between the most and least advantaged fifth of the population has widened between 2001 and 2015 (Figure 3 and 4).

- Males aged 60 to 89 from the least advantaged fifth of the country were 52% more likely to die in 2001 than men in the most advantaged fifth. By 2015, the death rate for the least advantaged was 80% higher.
- Similarly for women, the least advantaged fifth were 44% more likely to die in a year than the most advantaged fifth in 2001, but 81% more likely to die in 2015.
- Consequently, the gap in life expectancy between advantaged and disadvantaged has grown. In 2001, baby boys born in families living in the most advantaged fifth of neighbourhoods could expect to live 7.2 years longer than those in the least advantaged fifth. By 2015, the difference had risen to 8.4 years. Baby girls born in the most advantaged fifth of neighbourhoods could expect to live 5 years longer than the least advantaged fifth in 2001, increasing to 5.8 years longer in 2015.

Figure 3: Percentage difference in death rates of various socio-economic quintiles compared with the most advantaged fifth, for males aged 60-89 in England. ⁵

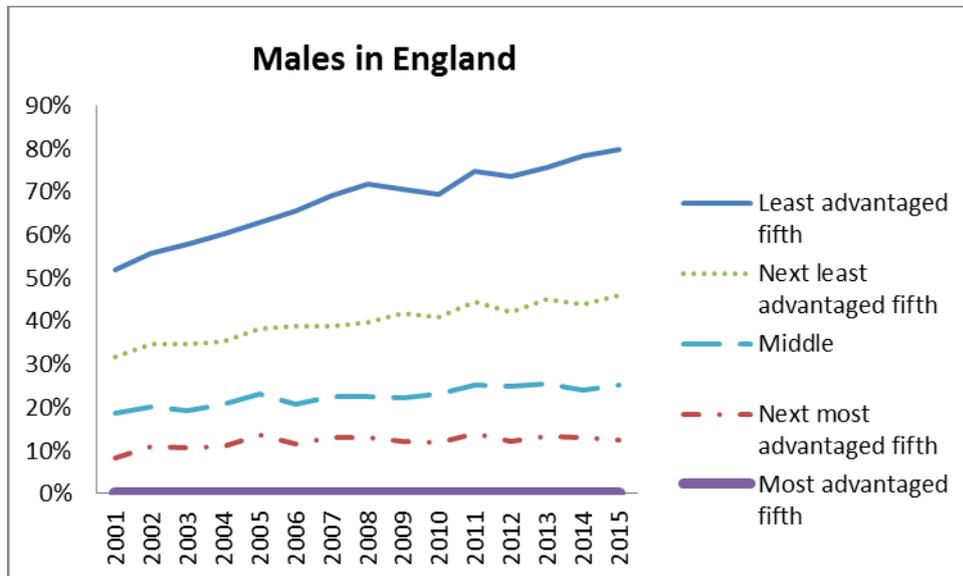
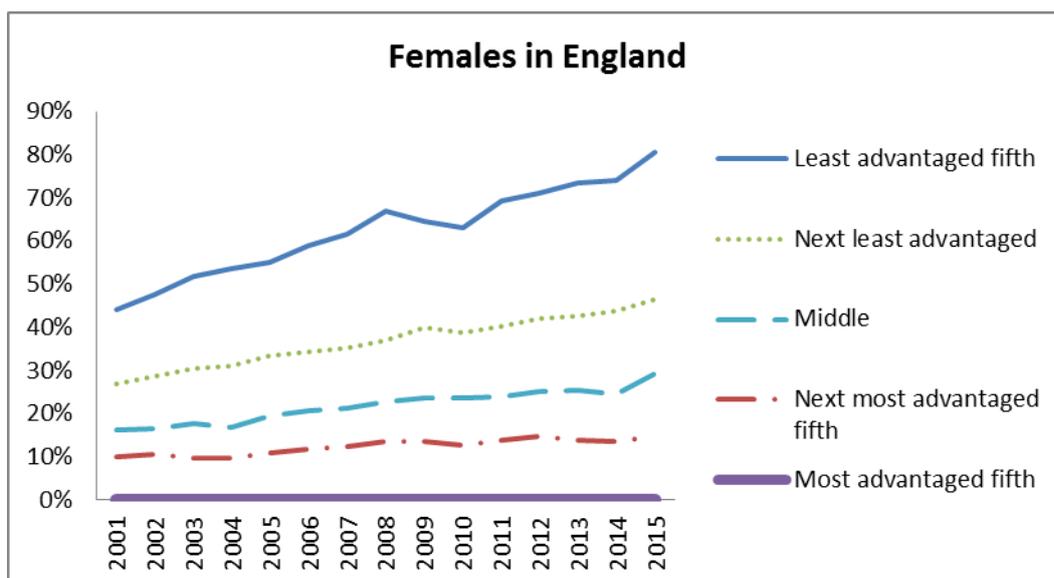


Figure 4: Percentage difference in death rates of various socio-economic quintiles compared with the most advantaged fifth, for females aged 60-89 in England. ⁵



Death rates have fallen faster for the better-off

Mortality rates have fallen for all groups since 2001. However, the most advantaged fifth have experienced a greater fall in death rates than their less advantaged counterparts (Figure 5 and 6). Pension plans, government bodies and insurers tend to set assumptions for future mortality trends using data from the total population, giving results for the average population. However, most pension commitments are associated with the more affluent because they have larger pensions and tend to live longer. So, forecasts for longevity should consider differences between people in different socio-economic circumstances.

Since 2011, coincident with the austerity measures following the 2008 economic crisis, the overall fall in death rates has slowed down. People in all socio-economic circumstances, including the most advantaged fifth, have experienced this flattening of life expectancy. The LSP recommends that more research is needed to understand the slow-down, including studies on possible influences on mortality of reductions in public services and state benefits.

We presume that the more self-sufficient and advantaged have been, and will be, less severely affected by cuts in social services. Hence, we expect the rich-poor mortality gap to persist, if not widen, if austerity continues.

Figure 5: Progression of male death rates, aged 60-89, of different socio-economic circumstances, in England, relative to their levels in 2001. ⁶

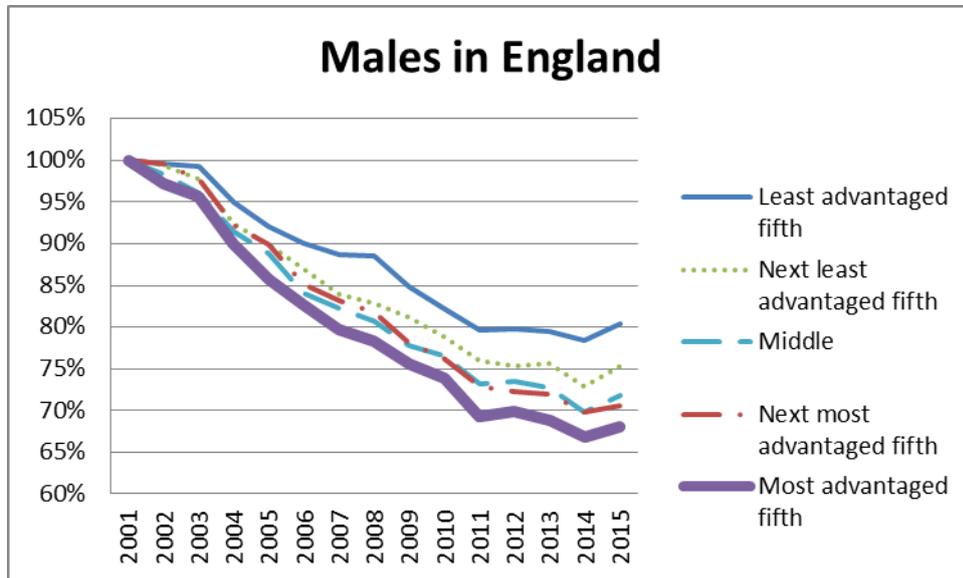
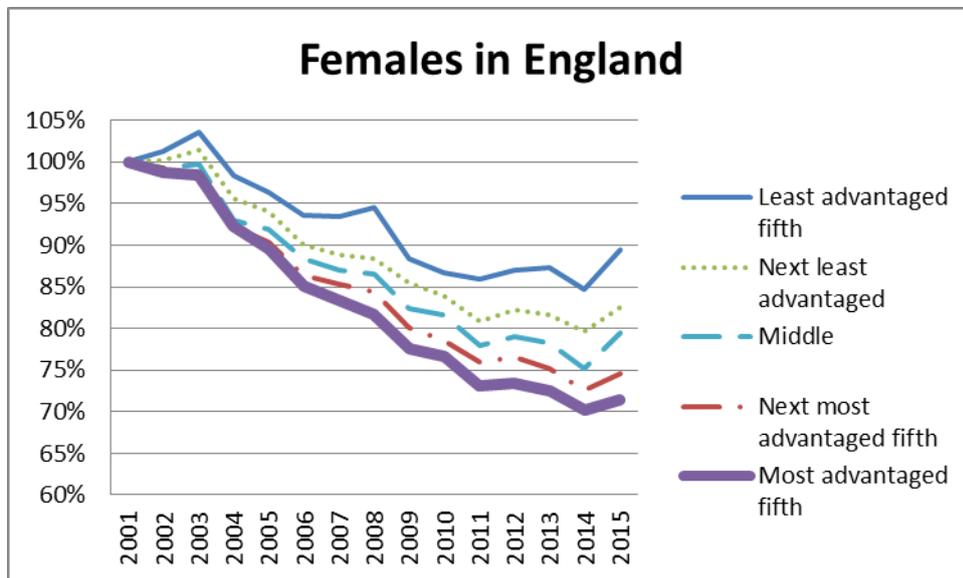


Figure 6: Progression of female death rates, aged 60-89, of different socio-economic circumstances, in England, relative to their levels in 2001. ⁶



It's mainly about money

The Index of Multiple Deprivation takes account of many factors, including various measures of income, education, crime, health, housing, environment and unemployment. We have studied how each of the factors is linked to death rates and how they interact with each other to influence death rates. Our analysis shows that the income level of each neighbourhood, as estimated from state benefits, is the factor most strongly associated with death rates.

References and notes

1. Longevity Science Panel (2012). Life Expectancy: Past and Future Variations by Socio-economic Groups in England & Wales. <http://www.longevitypanel.co.uk/viewpoint/life-expectancy-socio-economic/>
2. Barnett Waddingham (2017). Spotlight on Longevity.
3. Mortality rates for 5-year age bands were calculated for each socio-economic circumstances quintile for each year and gender. They are then weighted by population profile in the European Standard Population 2013.
4. <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/bulletins/annualsmallareapopulationestimates/mid2015>
5. Percentage increase in age standardised mortality rates of various socio-economic circumstances quintiles to the most advantaged fifth quintile in each calendar year. Figure 3 numbers are calculated from age standardised mortality rates in Figure 1. Figure 4 numbers are calculated from Figure 2.
6. Percentage increase in age standardised mortality rate of various calendar years to that in 2001 within each socio-economic circumstances quintile. Figure 5 numbers are calculated from age standardised mortality rates in Figure 1. Figure 6 are calculated from Figure 2.