Abstracts

area level measure of relative deprivation. Life tables by year, sex and deprivation quintile were constructed. Lifespan variation was calculated using \( e^t \). The magnitude of inequalities were estimated using the slope and relative indices of inequality. 95% confidence intervals were produced using Monte-Carlo simulation. The lifespan variation gap between the most and least deprived at (1) the same time point and (2) a comparable level of life expectancy was decomposed. The sensitivity of the results to starting at age 0 were tested by repeating the analysis starting at age 35.

Results

Lifespan variation for males from the most deprived quintile was 12.2 years (12.1 years-12.3 years) in 1981 and increased to 12.3 years (12.1 years-12.4 years) in 2011. For the least deprived lifespan variation decreased from 11.2 years (11.0 years-11.3 years) to 10.4 years (10.3 years-10.6 years). This caused the socioeconomic gap to widen over time in absolute and relative terms. In 2011 there was a 2.1 year (1.9 year-2.4 year) difference or a 19% (17%-21%) difference. The gap widened because of increasing differences in mortality rates across working ages from external causes. In 1981 external causes explained 55.1% of the gap and by 2011 they explained 69.5% of the gap. Deaths from circulatory disease explain less of the lifespan variation gap over time. At a shared level of life expectancy the most deprived quintile experience higher mortality rates from external causes of death despite arriving at this life expectancy thirty years later in time. Substantive conclusions were unchanged during sensitivity analysis.

Conclusion

The lifespan variation gap widened because of deaths across working ages from external causes. Scotland must reduce deaths across working adult ages from external causes if it is to reduce the gap and improve its ranking within Western Europe. Routinely monitoring lifespan variation inequalities is valuable for extending our understanding of the changing nature of mortality inequalities and is relevant for countries considering which public health strategies will reduce mortality inequalities.