Lifestyle or healthcare? Explaining the lack of progress in life expectancy

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Aim: In most high-income countries life expectancy is improving so steadily that the decisive factors responsible for the ongoing progress are hard to identify. In few of these countries, namely Denmark (DNK) the Netherlands (NLD) and Ireland (IRL), life expectancy exhibited longer periods of slower progress or even stagnation. The goal of this paper was to assess the possible impact of changes in three major determinants on the trend reversals: smoking, alcohol consumption and healthcare spending.

Methods: Using data of the WHO on causes of death, the HMD on mortality and the OECD on healthcare spending, we quantified the contribution of each determinant using direct and indirect estimation techniques. To assess the impact of each factor on the progress in life expectancy, we used a new tool - the "equivalent time" – measuring the lag between a country and the mean value of the G7 countries as reference.

Findings:

In 1995 the DNK, NLD and IRL lagged behind the reference progress in life expectancy between one and three decades. A substantial part of this lag was explained by the impact of smoking. In IRL also changes in the healthcare system were an important driver of the catch-up process. The factor alcohol consumption seemed to have played only a minor role.

Conclusions: Unfavourable lifestyle choices with respect to smoking affected the lack of progress in life expectancy in the countries of interest most, while changes in the healthcare system were important to keep pace or slightly catch up with the reference rate of progress.