

Monitoring socioeconomic differentials in healthy life years across Europe.

A brief overview of existing studies.

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While an increasing longevity has been experienced in most European countries, a significant part of life expectancy is lived with diseases and disability. Large variations in health expectancies are observed across Europe (Jagger, Gillies et al. 2008; Solé-Auró and Crimmins 2013). While the objective of a two-year gain in healthy life years (HLY) by 2020 has been settled by the European Union (Lagiewka 2012), reducing differentials between country is one of the possible mean to reach this objective (Jagger, McKee et al. 2013). Knowing the large variations in health differentials within countries according to socioeconomic status (SES), reducing health differentials is not only an important public health concern at country levels but also a mean to increase healthy active aging in Europe (Mackenbach, Stirbu et al. 2008; Marmot, Friel et al. 2008; Jagger, McKee et al. 2013; Rechel, Grundy et al. 2013). This workpackage intended to overview the national and international experiences in computing health expectancies by SES and highlight the fact that requested data are not yet available to produce routinely HLY by SES at the level of the European Union. In this note, we provide the references and general conclusion of the existing studies.

Experiences in computation of health expectancies by socioeconomic status

Studies worldwide consistently show for the 1990s a double advantage for higher socioeconomic groups in term of longer and healthy lives compared to lower socioeconomic groups (Crimmins and Cambois 2003). They have a higher LE than men, whatever the occupational situation, but this does not confer an advantage in terms of HE. At national levels, most study use the level of education as socioeconomic criteria (Bossuyt, Gadeyne et al. 2004; Bronnum-Hansen, Andersen et al. 2004; Minicuci and Noale 2005; Pérès, Jagger et al. 2005; Van Oyen, Bossuyt et al. 2005; Matthews, Jagger et al. 2006; Bronnum-Hansen and Baadsgaard 2008; Lievre, Alley et al. 2008; Matthews, Jagger et al. 2009; Van Oyen, Charafeddine et al. 2011). Meanwhile some refer to occupational classes which bring a interesting point of view in the debate concerning the age at retirement, occupation being a relevant criterion to distribute the population (Bronnum-Hansen 2000; Melzer, McWilliams et al. 2000; Cambois, Robine et al. 2001; White and Edgar 2010; Cambois, Laborde et al. 2011). Since the beginning of this programme, new studies have been launched bringing new estimates. For the UK, estimations and methodological issues were discussed in the framework of a master dissertation (Evans 2012). In Denmark, based on estimates on life expectancy by SES (Bronnum-Hansen and Baadsgaard 2012), estimates have been produced using SHARE and EU-SILC data to present new estimates and discuss methodological issues. Calculations using EU-SILC have been included in the last JA:EHLEIS country report as supplementary page (see included notes). Belgium is also in the process of collecting accurate data from national statistics to produce new estimates (Charafeddine R, Berger N et al. 2014). For UK, the office of statistics is currently repeating the estimates by social class with the same data and methods than the previous study of White and Edgar.

All studies both showed large differentials between the qualified and unskilled occupations or between high and low educated. Women display large occupational differentials in HE despite the small differences in LE. The magnitude of the HE's gap differs according to the health measure under consideration, confirming the relevance of covering several health dimensions. In some of these studies, such as in the French ones, partial health expectancies are computed in order to highlight premature mortality and disability inequalities. In this age group, women and men spend an equivalent period of time with some functional health problems that jeopardize work and social participation in late working ages to the same extent

for both men and women. Finally, when several SES categories are considered, these studies confirm that a gradient exist all along the social classes, expressing the varying and the cumulated health risks over the life span, work and life experiences.

Direct comparison of these studies is limited, even within a country, due to differences in data sources, disability/health indicators and period of observation (Cambois, Robine et al. 2007). These differences are also due, to the size of the SES groups, and the level of detail in the distribution and to the measurement of various disability dimensions. Meanwhile, European research programs worked on harmonization of mortality data for some countries providing opportunity to produce comparable estimations of health expectancy by SES. Majer and colleagues used the European European Community Household Panel data to compute total and partial disability free life expectancies. The study shows variation across the 10 countries under consideration in the differentials DFLE; the gradient changes when considering the 50-65 year old age group and the 65+ (Majer, Nusselder et al. 2010). More recently, another study presented HLY by educational level for 8 EU countries using EU-SILC and modeling mortality data (Maki, Martikainen et al. 2013). This study concentrates on partial HLY in the 50-79 age groups and also shows large variation in the educational gaps between countries. Again, direct comparison between the results obtained in these two European studies is not possible due to different data sources and disability indicators.

These studies both highlight the relevance of computing and discussing health expectancy estimates by socioeconomic status and the caveats for computing routine and comparable estimates at the EU level. We recommend the objective of stratifying the HLY estimates yearly to be postponed, waiting for more accurate data on mortality by SES to be routinely produced.

The objective of the WP6 was therefore to prolong the ongoing national initiatives to assess SES differentials in HLY and in the meantime, to analyse the EU-SILC data on activity limitation by SES across the European Union and discuss the obtained estimates.

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