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5 Health, morbidity and mortality

Individual and contextual determinants of social inequality on mortality in Southern Europe.

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Studies on social inequality and mortality have a long tradition in demography and epidemiology. However, in Spain, as well as in the rest of Southern Europe, the statistical sources available don't allow going further from ecological territorial analysis. Although this kind of analysis allows us to study the association between social characteristics and mortality, it does not allow measuring the real impact of these determinants on mortality. Recent developments on the integration and linkage of individual statistical registers, as the Longitudinal Population Database of Andalusia Region, which follows up 9 million individual trajectories, will allow a precise quantification and decomposition of the effect of social determinants on mortality.

Objective

The main objective is to quantify and decompose the impact on longevity of social characteristics: personal, familial and residential surrounding on the Andalusia population during the first decade of the XXIst Century.

Data and methods.

This study made use of the Longitudinal Population Database of Andalusia, a source integrating individual information from different administrative and statistical sources, created from the linkage of population records (Padron de habitantes), vital statistics (Movimiento Natural de la Población –MNP), residential mobility records and census data (2001) developed by the Institute of Statistics and Cartography of Andalusia (IECA) to follow vital trajectories of the population that at some point in time resided or experienced a vital event in the Autonomous Community of Andalusia (Spain).

Andalusia, with almost 8 million inhabitants, represents around 20% of total population of Spain. With this Longitudinal Register it have been followed, from the Census cohort of 2001, around 95% of total population interviewed in that Census in Andalusia (7.357.558 individuals). Their vital status and residential mobility have been followed to account for migration and deaths till 2011. For each individual it has been estimated the duration of this following up process and their vital status at the end or exit of the study. Finally, it has been carried out a multilevel approach modeling of the survival function using social, familial, census track of residence characteristics recorded on the 2001 Census.

Preliminary Results.

Life expectancy differentials for the population over 40 years old, by individual characteristics, such as educational level attained, are very significative. Those characteristics associated to household of residence, as well as housing ownership and other non measured characteristics had also an important impact. However, despite of an important residential segregation, characteristics regarding the area of residence had a weak and marginal impact once discounted the effects of individual and familial characteristics.

Conclusions.

The creation of longitudinal population datasets based on statistical and administrative records in Southern Europe are allowing the study of social inequalities on health and death which until now have been scarcely analysed, overcoming the problems and limitations imposed by other published demographic data.