

Determinants of Regional Differentiation of Mortality in the Czech Republic

Abstract

There are considerable differences in socioeconomic and sociodemographic factors influencing mortality on the individual and also on the aggregate levels. These differences were observed and explained in many countries of the world. The objective of this thesis is to find and evaluate the most significant external factors which influence actual regional differentiation of mortality in districts of the Czech Republic. The objective was achieved by means of the demographic and statistical analysis methods. First, there was a comparison of mortality rates calculated for each of the socioeconomic clusters. It was found out that higher mortality rates appeared among men and women living in the districts with unfavourable external conditions. Using the Poisson log-linear model, the most important factors influencing differences in mortality rates in districts of the Czech Republic were identified. These factors are: share of the unemployed, share of the divorced, share of university-educated people and the number of physicians in hospitals per 1000 inhabitants. Share of the unemployed seems to be the most significant factor. There is a correlation between this factor and the total mortality rate as well as the leading causes of death. Anyway, the impact of some factors can change according to age. While the existing relation between share of the unemployed or share of the divorced and differences in mortality among districts is the strongest in middle age, importance of the number of physicians in hospitals per 1000 inhabitants to the regional differentiation of mortality increases with age.

Keywords: mortality, regional differentiation, districts, cluster analysis, Poisson regression