

COVID-19 pandemic from a demographic perspective: an international comparison

Abstract

The main goal of this work is to compare the course and severity of the COVID-19 pandemic in five European countries (Czechia, Germany, Italy, Spain and Portugal) during the first wave of this pandemic roughly in the spring and summer of 2020. The key observed aspect is the sex and age structure, of both the total population and the population of individuals with confirmed COVID-19 infection and also those who have died. The first part of the work is devoted to the theoretical introduction, definition of basic concepts and summary of the pandemic in all selected countries. Subsequently, differences between countries, age groups and sexes are compared using both crude and standardized rates of incidence, lethality and fatality. The results show that the age and sex structure of the population of confirmed cases has a significant effect on the course and severity of the first wave of the pandemic. Furthermore, a comparison of the differences in the age structure of deaths with COVID-19 and deaths from respiratory diseases before this pandemic is made. A comparison of COVID-19 lethality rates for the first wave of the pandemic and pre-pandemic respiratory diseases lethality rates did not confirm any link between pandemic severity and respiratory disease lethality.

Key words: COVID-19, age and sex structure, incidence, lethality, fatality, standardization, pandemic