Abstract

Influenza is accompanying humans for centuries and for centuries people are dying in hundreds. Every year there is seasonal influenza epidemy, which is caused by common circling influenza viruses in which happened small changes. Every 10-20 years is discovered completely new influenza virus subtype which is created by big genetical changes. Most affected areas are poor states in Asia or in different countries with insufficient hygiene or unavailable medical care, these countries also have huge mortality. Czech Republic wasn't independent for many centuries and describing historical evolution of this disease is very complicated, but we have few data form Spanish influenza time. Influenza and other acute or chronical respiratory are reported, so it is possible to create some demographic or statistical analysis. Unfortunately, in Czech Republic only 50-55 % of all cases are reported. This work is devoted to spatiotemporal analysis of influenza in Czechia and is done through statistical analysis like corelation analysis or time series analysis that are examining spatiotemporal way of the spread of the virus. Goals of this thesis with the help of these methods are to answer questions about questions concerning the spatiotemporal patterns of influenza spread, therefore what the repeatability of individual seasons and regional differences is. These patterns are key to determining the spread, knowledge of disease development and dynamics.
Key words: influenza, Czechia, spatiotemporal analysis, regional differentiation