

**Abstract:**

The aim of this thesis is to map regional variability in the intensity of mortality using methods avoidable mortality and a few selected characteristics of health care. The thesis describes the development of the concept of avoidable mortality, which is then used for the Czech Republic for the period 2006–2010 and to individual districts for the period 2006-2010. Furthermore, this thesis focuses on the relationship between expenditures of General Health Insurance Company and the level of mortality in the regions. For showing regional differences depending on the health care intensity of mortality from ischemic heart disease (both acute and chronic forms) was also selected, depending on the distance of specialized medical care. The last chapter focuses on National screening programs and cancer mortality, which are integrated in a comparison of the percentage of people examine in this program for districts. The relationship between spending per insured and intensity of mortality and outcomes related to the intensity of mortality, depending on the availability of specialized health care has been confirmed by statistical methods - correlation (Pearson correlation coefficient). Relationship between the intensity of mortality in cancer within screening programs and the percentage of people who passed the examinations has not been confirmed.

**Key words:** avoidable mortality, regional variability in mortality, ischemic heart disease, national screening program, healthcare system