Spatial disparities in mortality by causes of death in the Republic of Moldova

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Abstract

Background: Previous studies have shown long-term unfavourable changes in mortality in the Republic of Moldova accompanied by recent improvements. Little is known about the regional mortality differentiation which is an important tool for evidence-based public health policy. The aim of the study is to assess the current geographical disparities of all-cause and cause-specific mortality in Moldova and to identify evidence-based modalities to reduce them.

Material and methods: This cross-sectional study is based on the corrected results of the 2014 census and individual death records for the 2012-2016 period provided by the National Agency for Public Health. Global Moran’s index and local indicators of spatial autocorrelation were computed based on contiguity matrix.

Results: All-cause mortality gradient between the northern and central regions was found for males (Moran’s index=0.47, p<0.001) and females (Moran’s index=0.44, p<0.001). Digestive and cardiovascular diseases for both sexes and external causes of death for males had a statistically significant influence on the inter-regional mortality differentiation. Liver cirrhosis contributed the most to the geographical difference between the North and the Centre (Moran’s index=0.59, p<0.001), especially for females.

Conclusions: The results of this study point to the existence of different drinking habits of the Moldovan population between the northern and central regions. The central regions that form the cluster of “high-high” mortality from liver cirrhosis should be considered as primarily targets for antialcohol policies.

Key words: mortality, causes of death, spatial autocorrelation.

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