

---

**THE SPATIAL PATTERN OF SUICIDE IN BELARUS: DOES ALCOHOL MATTER?**

Y. Razvodovsky<sup>1</sup>, S. Kandrychyn<sup>2</sup>

<sup>1</sup>Scientific Laboratory, Grodno State Medical University, Grodno, Belarus ; <sup>2</sup>Departement of Cardiology, Regional Clinical Hospital, Minsk, Belarus

---

**Introduction:** Suicide is one of the main causes of premature mortality in Belarus, bringing considerable loss of human lives. The alarming increase in the occurrence of suicide in Belarus in 1990s has resulted in the country having one of the highest suicide rates in the world. Epidemiological analysis has showed that rates of suicide vary noticeably between the regions in Belarus with the regular spatial pattern in suicides distribution.

**Objectives:** The aim of this study was to consider the effect of regional alcohol consumption as a factor responsible for suicides regional variations.

**Methods:** The cross-sectional time series analysis of suicides and alcohol psychoses (as a proxy for alcohol consumption) rates by the regions of Belarus during the period 1990-2010 was performed.

**Results:** The analysis indicates that the regional variations of suicides and alcohol psychoses incidence rates have a similar spatial regularity, which means that the regions with a high suicide rate also have a high alcohol psychoses incidence rate. The effects of alcohol psychoses incidence (as a proxy for alcohol consumption) on suicide rates were generally positive and significant; only Minsk city obtained a non-significant estimate. The largest estimates were found in Minsk region (0.68) and in Mahiliou region (0.55). The estimates for Brest and Vitebsk regions were somewhat lower (0.41).

**Conclusions:** The findings on spatial relationship between suicides and alcohol psychoses incidence rates seem to support the hypothesis that considers regional pattern of alcohol-related problems as a factor responsible for suicides rate regional variations in Belarus.