



## ABSTRACTS

### 13. George-Laurentiu Merciu, Cristina Merciu, Andreea-Loreta Cercleux, Elena Bogan: **THE ASSESSMENT OF THE INFANT MORTALITY RATE IN ROMANIAN SMALL AND MEDIUM-SIZED INDUSTRIAL TOWNS USING SPATIAL ANALYSIS**

Romania ranks first among European countries with an infant mortality rate of 9.2 deaths per 1,000 live births, as it is reflected by the Eurostat. The socio-economic evolution of Romania in recent years, marked by the economic transition, as well as the specific problems that have perpetuated in the health domain, explain the very high values of infant mortality. The worst consequences were due to the implementation of an improper sanitary reform, one of the measures being to shut down 67 hospitals in 2011 in small and medium-sized towns and in rural areas.

The purpose of this study was to investigate the spatial patterns of the factors that are associated with the infant mortality rate in Romanian small and medium-sized industrial towns from 2010-2014. As a general appreciation, at national level, the small and medium-sized industrial cities have undergone strong economic transformations (the striking and, in some cases, the closure of industrial activity) that have also had demographic consequences. Many of these are currently former industrial towns (Anina, Brad, Orșova, Aninoasa, Moreni, Găești).

The significant reduction of the share of industry in the local economy has also been reflected in the slight increase of the infant mortality rate. Statistics data from 2010 to 2014 were analyzed in order to establish the patterns of distribution and the factors that influence the infant mortality at the level of Romanian small and medium-sized industrial towns. Statistical data were correlated with the high risk exposure in industrial areas that could affect both infant mortality and prematurity. The pollution generated by the industrial activity can affect other categories of local population, not only the miners. For example, the most affected persons are those who live in the vicinity of an industrial exploitation unit. Impacts of exposure are related to birth defects, some congenital abnormalities and hereditary illnesses. Several extractive activities can also affect fertility and postnatal viability.

The finding is that the smallest values of the infant mortality rate (between 0-8 ‰) are recorded by several industrial cities which are widespread at the national level, being predominant in the Southern and Eastern parts of the country and in the Central Region (especially in Alba, Brașov, Sibiu, Mureș counties). The urban centers that record medium values of the infant mortality rate (ranging from 8.1 ‰ to 16 ‰) are distributed in the Southern and South-Eastern parts of the country (Olt, Dolj, Valcea, Prahova, Calarasi, Constanta counties), as well as in the South-Western and North-Eastern part of the country (Hunedoara, Caras-Severin, Suceava, Botosani, Bacau counties). In this category are included towns located in the intensively industrialised counties during the Communist period. These industrial towns are characterized by a poor health infrastructure: Anina (15,82‰), Lupeni (15,93‰), Comănești (15,58‰). The high rates of infant mortality (16,1‰ - 24‰) are recorded by towns which are located especially in the Central, Southern and South-Eastern part of the country. Most towns included in this category are former industrial centres (Ocna Mures).

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