DEMOGRAPHIC ANALYSIS OF THE BIHOR/HAJDÚ-BIHAŘ EURO-REGION

Daina Lucia*, Burta Ligia*, Carp Gheorghe*, Venter Alina*, Chereji Anca**

*University of Oradea, Faculty of Medicine and Pharmacy, Oradea, 1 December Street, nr.10, Romania, e-mail: lucidaina@gmail.com
**University of Oradea, Faculty of Environmental Protection, 26 Gen. Magheru St., 410048 Oradea, Romania

Abstract

The study of the population from the Bihor/Hajdu-Bihár euro-region is of great importance to establishing new ways of cooperation between the communities of the two countries: organizing and coordinating activities meant to promote cooperation in established domains, implementing concrete programs in mutual interest areas. On the territory of the aforementioned region we can observe a numerically balanced human component, while ethnically we can see a dominant Romanian/Hungarian structure with a downward trend in population in the past decade and negative natural growth. The feminine population based in an urban environment predominates in both counties.

Key words: Euro-region, demography, population

INTRODUCTION

The Bihor/Hajdu-Bihar euro-region was created at the end of 2002 at the initiative of the Bihor County Council and the Local Hajdu-Bihár Auto-Governance Body, which recognized the important role that they play in cross-border cooperation in areas of common interest for the process of European integration (Bihar megye területfejlesztési koncepciója, stratégiai programja es operatív programja/Concepția de dezvoltare teritorială, strategia de dezvoltare și programul operativ al județului Bihor). In the medical field, the general objective of the region’s creation was that of drawing economic entities, persons and communities closer in the hope that the opportunities offered for the common development of the border area will be fully exploited, the regional unbalances diminished and a stimulus for balanced growth and revitalizing impoverished areas would be offered.

Today, humanity is confronted with the endemo-epidemic spreading of some diseases which pertain to the demographic explosion of several areas of the world, some diseases which relate to a growing number of old-age population groups as a result of an increase in life expectancy and of diseases which follow the human being in his even faster and even more intense movement within the migration for work, tourism and political, economic, scientific and cultural relationships. In this study, a greater attention is shown to the analysis of the population from within the euro-region in order to create a database which will stand at the heart of ulterior
analysis of the population’s overall health state (Hajdu-Bihar megye területfejlesztési koncepciója, stratégiai programja/Concepția de dezvoltare teritorială, programul strategic al județului Hajdu-Bihar).

**MATERIAL AND METHOD**

In order to properly analyze the data from a demographic point of view, we have used the method of descriptive epidemiological analysis. Through the method of observation we have followed the development of some phenomena in order to analyze them dynamically as well as obtaining a synthesis of essential characteristics through the comparison of several phenomena. The applied strategy is an observational, retrospective and descriptive study.

In the strategy, extra attention was given to the level of data harmonization in the area of the population’s health state. The informational base from several Romanian and Hungarian institutions was also used in the study: Bihor County Statistics Agency, Debrecen Statistics Agency-KSH, Bihor County Public Health Office and Debrecen-ANTSZ, city halls and county councils of the two cities Oradea and Debrecen.

*Sources for the data:*

**Bihor County:**
- National Statistics Office – data regarding the population: number, structure.
- Bihor County Statistics Agency – statistical data regarding health
- Bihor County Public Health Office – data regarding demographic indicators (Date statistice de la Direcția de Sanatate Publică Bihor, Raport de activitate a Direcției de Sănătate Publică a Județului Bihor, 2011, 2012)

**Hajdu-Bihar County:**
- National Health and Health Development Institute – statistical data about health (Date statistice de la Primaria orasului Debrecen, Directia de Statistica din Debrecen)
RESULTS AND DISCUSSIONS

On the 1’st of July 2011, Bihor County had a population of 549,752 inhabitants, being situated 11th in the ranking of Romanian counties without considering the capital city. In regards to an altering in the number of the population between 1930 and 2002 we can state that during every census the size of the increase was below the national average. Compared to the year 1930, the increase in the number of people in Bihor County was of 113,8% while Romania’s level was situated at 151,6%.

For the first time in 40 years, in the year 2010 the rapport between urban and rural was inverted, with a larger population living in the rural areas than the urban areas.

The number of inhabitants in Bihor County culminated in the year 2001, while the national average began to significantly decline since 1990. Analyzing other counties under the aspect of processes related to an increase in population, Bihor County is not among the poorer counties but the tendency has a role of serving as a warning. The county presents with a positive growth in internal migration, but it is also important to underline the fact that from the aspect of ethnic structure there is an increase in the movement of gipsy population within the area.

![Figure 1](https://source.unsplash.com/random/600x400)

**Fig. 1.** Number of Population in Bihor County during 2001-2010 (*Source: Bihor County Public Health Office – Medical Statistics Department*)

**Table 1**

Population repartition in Bihor County based on gender and origin between 2006-2011

(*Source: Bihor County Public Health Office – Medical Statistics Department*)

<table>
<thead>
<tr>
<th>Population</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total</td>
<td>593760</td>
<td>592812</td>
<td>592564</td>
<td>592098</td>
<td>591623</td>
</tr>
<tr>
<td>Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Masculine</td>
<td>288276</td>
<td>287849</td>
<td>287763</td>
<td>287841</td>
<td>287356</td>
</tr>
<tr>
<td>Feminine</td>
<td>305484</td>
<td>304963</td>
<td>304801</td>
<td>304813</td>
<td>304267</td>
</tr>
<tr>
<td>Origin</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td>298215</td>
<td>297093</td>
<td>296363</td>
<td>296368</td>
<td>295553</td>
</tr>
</tbody>
</table>
In Bihor County, young people surpass the value of the proportion reached nationally and, in a direct correlation, the proportion of elderly people is under the value registered countrywide. This shows that the probable life expectancy rate in Bihor county is inferior to the national average – in the case of the entire population this value is situated at 69,88 years (71,32 years countrywide), divided into 66,72 years in males (67,74 years countrywide) and 73,10 years in females (75,06 years countrywide).

As such, the favorable structure of aging also reflects the results of unfavorable demographic processes, making it vital to show importance to improving the quality of life along with qualitative and quantitative developments of public utility services and prevention in the domain of health and medical treatments (The World Health report 2006 – Hungary).

The population of Hajdu-Bihar County, in rapport to the country’s population, presents a smaller index compared to the rapport between its territory and the country’s territory (5,42%), having approximately 548,773 inhabitants in 2011. The density of the population rose between 1900-1999, however, since then, it has been continuously declining. The density of the population within the country is 88 inhabitants/square kilometer, with this value being only 80,7% from the value registered nationally (109 inhabitants/square kilometer). Based on OECD framing, with the exception of Debrecen, the micro-regions within the county are rural due to the fact that 15% of the population lives within a territory with a density smaller than 120 inhabitants/square kilometer.

The demographic decline in 2011 due to internal migration (1650 people) was compensated by an excedent caused by international migration, which was of 1550 people (Tájékoztató a Hajdú-Bihar Megyei Önkormányzat számára a megye lakosságának egészségi állapotáról, 2010).
The age-based structure of the population in Hajdu-Bihar County corresponds more or less to the national average, but the proportion of people between the ages of 0-24 is over the national average while the rapport of people over the age of 50 is smaller than the national average. In regards to gender, it is characteristic that the shorter life expectancy in males and longer life expectancy in females is not compensated by the fact that there are more males born.
In the studied period, in Bihor County, the evolution of the natural growth index presents with a tendency to decrease, which ultimately shows the continuous decrease between the number of newborns and deceased people in Bihor County. At the level of the entire country, the natural growth index presents with smaller values in comparison with Bihor County levels.

In Hajdu-Bihar County the natural growth index registers a fall both nationally and within the county itself. Between the years 2004-2008 we can observe a decrease in the median value of the growth index. Data regarding the county cannot be considered unfavorable if they are compared to data collected nationally. Overall, we can state that starting the year 2000, the number of people who have left the county is 4000 above the number of people who have moved to the county (Tájékoztató Hajdú-Bihar megye lakosságának egészségi állapotáról, 2012). This process of natural reduction of population leads to the slow decrease in county population numbers.

![Fig. 6. Evolution of natural growth index of population from the Bihor/Hajdu-Bihar euro-region between 2001-2010 (Source: Debrecen Statistics Agency, Bihor County Public Health Office, 2011)](source)

We can also observe concrete differences in ethnic structure, based on the table below:

![Fig. 7. Ethnic structure of the euro-region (Source: Debrecen Statistics Agency, Bihor County Public Health Office, 2011)](source)
CONCLUSIONS

The analysis of the structure of population in Bihor and Hajdu-Bihar Counties shows the following:

- On the territory of the euro-region we can find a human component which is numerically balanced and ethnically mostly Romanian/Hungarian.
- The numerical evolution of the population has followed a descending trend in the past decade.
- The female population and the population originating in urban areas is predominant in both counties.
- Bihor County has a more accentuated negative natural growth index.

The inclusion of a population of about 1.143.042 people within the aforementioned euro-region at the level of the year 2010 position this structure in the category of those regions with an optimal potential in development based on availability of human resources and their organization.

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