

ASPECTS REGARDING THE HEALTH STATUS OF SIBIU COUNTY ACTIVE POPULATION

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Abstract: In the conditions of population aging registered in our country, both by declining birth rates and increasing life expectancy, the active population aged between 15 and 64 years old recorded a downward trend. According to a survey by Eurostat, in 2060, almost 65% of the people over 15 will be at retirement. The health of the population reflected by morbidity and mortality indicators has a great significance on the active population, personal welfare and last but not least on the national economy. Active population morbidity and the impact of illness on labour temporary disability are dominated by respiratory diseases, tumours, diseases of bones and joints, muscles and connective tissue, injuries and poisonings. Mortality indicators reflect somewhat the morbidity indicators regarding causality, except for specific mortality by cardiovascular diseases, which occupies the first rank in the specific mortality, with a rate of 152.85% 000 inhabitants and male predominance (225.74% 000 inhabitants).

Cuvinte cheie: populația activă, morbiditate, mortalitate, județul Sibiu

Rezumat: În condițiile înregistrării fenomenului de îmbătrânire a populației la nivelul țării noastre, atât prin scăderea natalității, cât și prin creșterea speranței de viață, populația activă, cu vârstă cuprinsă între 15 și 64 de ani, înregistrează un trend descendent. Astfel, conform unui studiu Eurostat, în 2060, aproape 65% din persoanele de peste 15 ani vor fi la vârsta pensionării. Starea de sănătate a populației reflectată de indicatorii de morbiditate și mortalitate au o deosebită semnificație asupra populației active, a bunăstării personale și nu în ultimul rând asupra economiei naționale. Morbiditatea populației active precum și impactul îmbolnăvirilor asupra incapacității temporare de muncă sunt dominate de afecțiunile respiratorii, tumori, bolile aparatului osteoarticular, mușchi și țesut conjunctiv, traumatisme și otrăviri. Indicatorii de mortalitate reflectă oarecum indicatorii de morbiditate în privința cauzalității. Excepție o face mortalitatea specifică prin boli cardiovasculare care ocupă primul rang în cadrul mortalităților specifice, cu o rată de 152,85%000 de locuitori și predominanță masculină (225,74%000 de locuitori).

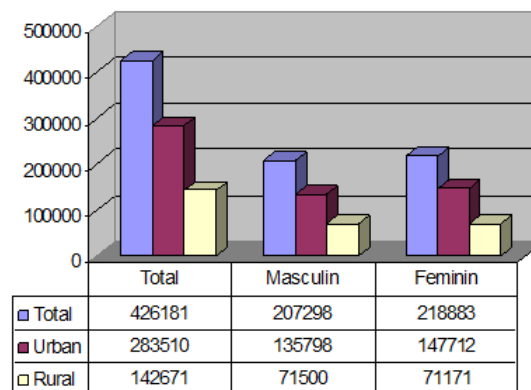
Active population comprises all persons aged 15 and over who provide the available labour force for the production of goods and services, including the employed and the unemployed. Romania's active population in 2011 was 9.868 million people, according to the data released by the National Statistics Institute (INS). Romania's population will be considerably aging in 2060, almost 65 % of people beyond 15 years will be in retirement, according to a survey by Eurostat. Thus, Romania will be ranked 2 in Europe by the number of persons in retirement. According to Eurostat, the elderly had in 2010 a share of 21.23 %, compared to people over 15 years old. Estimates show that this share would alarmingly increase in the decades to come. In 2030, the population over 65 years old in Romania should be about 30 %, while in 2050, its share would increase to almost 54%.

General aspects regarding the population of Sibiu County

Sibiu County recorded in the 2002 census was of 421,724 inhabitants. In 2011, it reached 426 128 inhabitants and in 2012-426181 inhabitants. Figure no. 1 illustrates the distribution of Sibiu County population, the distribution of origin and gender. Population's distribution by the area of origin in 2012 was in favour of urban areas (67%).

In terms of gender distribution, there has been a higher percentage of the female population, compared to the male population (51% versus 49%). The same proportion is maintained in the distribution of male and female population in urban areas. In rural areas, however, this ratio is approximately 1:1.

Figure no. 1. Distribution of population by gender and area of origin in 2012 in Sibiu County



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Natural movement of the population; influences on the active population

The most important indicators of the natural movement of the population with direct significance on the working population are birth and death rates.

Birth rate

The birth rate underwent a downward trend in recent decades. However, in the county of Sibiu, in recent years, there was a slight upward curve. Thus, in 2012, in Sibiu County, there was a gross birth rate of 8.80 ‰ inhabitants, compared to 2011, when the gross birth rate was of 8.53 ‰ residents.

Fertility

Fertility is an indicator that measures indirectly the birth rate of the female working population, which also suffered a downtrend.

Table no. 1. Fertility indicators per area of origin between 2009 and 2012 (‰ inhabitants) in Sibiu County

Area of origin	Year			
	2009	2010	2011	2012
Urban	33.96	32,10	28,98	29,85
Rural	49.11	43,58	42,62	44,65
Total	38.57	35,67	33,25	34,56

From the above table, it is observed that urban fertility is lower than the rural one, which emphasizes the active population decline, which is mainly in urban areas.

Death rate

The gross mortality rate in Romania is among the most increased in Europe, with the value of 12.15 per 1000 residents, with values ranging between 9 and 17 per 1,000 inhabitants. In the county of Sibiu, in 2012, there was a mortality of 10.14 ‰, up from 2011, when its value was of 9.63 ‰. In 2012, in Sibiu County, gross mortality rate of the working population has reached a value of 4.28 ‰, with a male over-mortality of 6.13 ‰ to 2.44 ‰ of the female active population. Regarding the area of origin, over-mortality is found in urban areas. These data are shown in the figures below.

Figure no. 2. Distribution of the number of deaths of the active population per area of origin in 2012, in Sibiu County

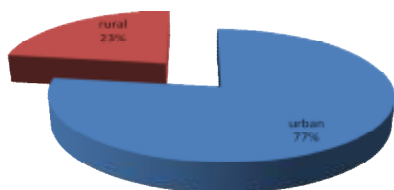
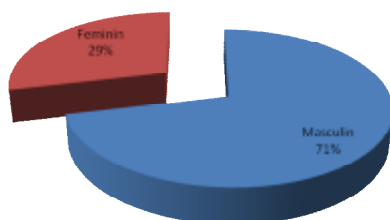
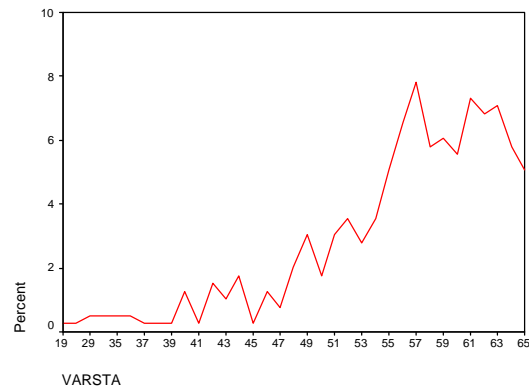


Figure no. 3. Distribution per gender of the number of deaths recorded in the active population in 2012



Mortality increases along with age, as shown in figure no. 4, from 0.80 ‰ at the age of 20 to 16.79 ‰ in people 64 years old.

Figure no. 4. Evolution of the number of deaths frequency in the active population of Sibiu County in 2012

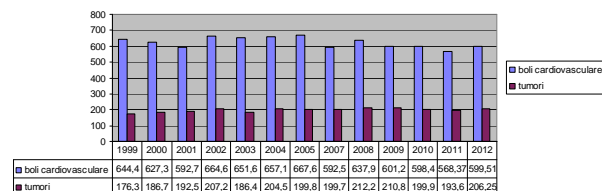


The first three ranks of mortality for Sibiu County are:

- rank I – cardiovascular diseases,
- rank II – tumours,
- rank III – respiratory diseases.

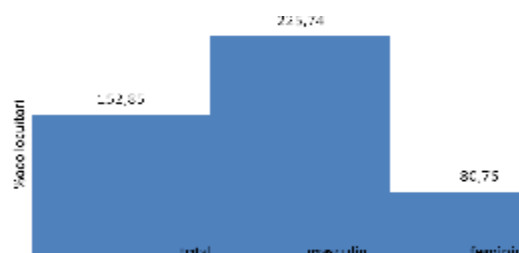
The first cause of mortality both nationally and in Sibiu County is represented by cardiovascular diseases. This indicator has been increasing constantly. A second cause of death, represented by tumours also has a steady upward trend, see figure below.

Figure no. 5. Mortality from cardiovascular diseases and tumours between 1999 and 2012 (‰ 000) in Sibiu County



Specific mortality from cardiovascular diseases in the active population of Sibiu, occupies the first rank of mortality with a value of 152,85 ‰000 inhabitants. There were major differences in terms of gender distribution. In males, there was a mortality rate of 225,74 ‰000 as against 80,75 ‰000 in the female.

Figure no. 6. Gender distribution of mortality from cardiovascular diseases in Sibiu active population in 2012

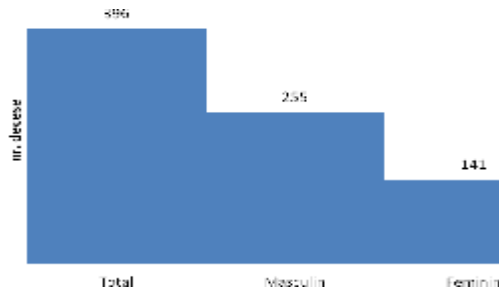


The second cause of mortality is represented by tumours. Specific mortality tumours in Romania in 2010 equalled to 221,7 ‰000 inhabitants, representing 47502 deaths. In 2011, their number increased, reaching 48334 deaths. In the county of Sibiu, the tumour-specific mortality in 2012 equalled

206,25 ‰. For the working population, its value was of 130,73 ‰ inhabitants.

Gender disparities are illustrated in figure no. 7, recording rates of 169,30 ‰ for men and 92,58 ‰ for women.

Figure no. 7. Distribution of deaths by tumours according to gender in the active population of Sibiu County in 2012



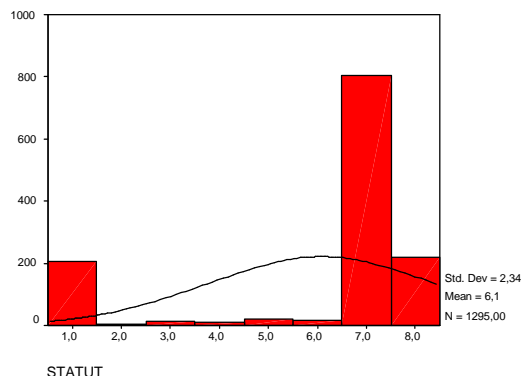
A third cause of death in the active population and with negative significances when linked to work is the mortality from trauma and accidents. If at the level of the general population it records the value of 36.13 at ‰ inhabitants, for the active population, it recorded a value of 48,20 ‰ inhabitants, of whom 80,34 ‰ for males and 16,41 ‰ for females. The next specific mortality ranks in the active population are occupied by: specific mortality due to respiratory diseases (23,44 ‰ inhabitants), neurological (7,59 ‰ inhabitants), kidney (5,61 ‰ inhabitants) and metabolic diseases (6,27 ‰ inhabitants).

Professional status

Persons are classified according to the professional status in accordance with the international classification ICSE-93. The professional status represents the situation of a person by way of obtaining income through the work exerted i.e. employees, non-employees, employers, self-employed, unpaid family workers, members of cooperatives, unemployed, retired, other situations.

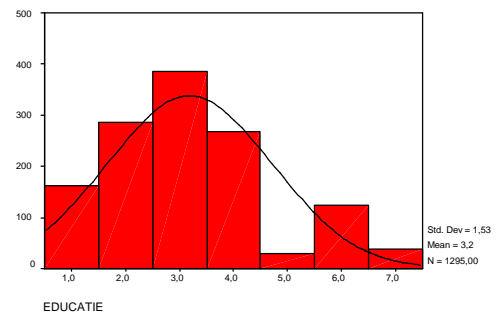
The analysis of the social status and the educational level of people of working age deceased in Sibiu County in 2012, reveals that 62.2% of them were retired, 15.9% were employed and 16.9% in other situations, see figure no. 8.

Figure no. 8. Distribution of deaths in the active population in Sibiu in 2012, by professional status



As for their level of education, 29.3% had a professional level, 22.1% middle school, high school 20.7, 12.6% elementary school and 9.7% university education. The figure below emphasizes the frequency of deaths in the active people by the level of education.

Figure no. 9. Distribution of deaths in the active population in Sibiu County in 2012, by level of education



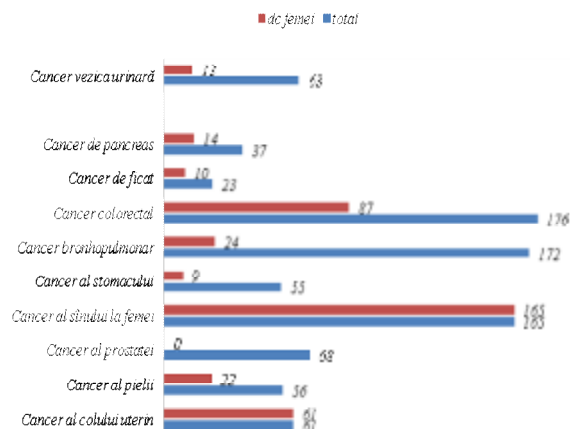
Morbidity in Sibiu County

Morbidity, the indicator that measures the level of illness of the population uses as tools other two indicators, the incidence, or the number of new cases of disease, namely the prevalence or the existing cases through affection. The most common diseases of the 2012 according to the reports from the Public Health Directorate of Sibiu are: cardiovascular diseases, infectious and parasitic diseases, endocrine diseases, including diabetes mellitus, see table no. 2.

Table no. 2. Specific incidence of the main causes of disease in Sibiu in 2012

Disease classes	No. of cases	Specific incidence ‰
Infectious and parasitic diseases	5747	1348,5
Tumours	1325	310,9
Diseases of blood and hematopoietic organs	459	107,7
Endocrine, nutritional, metabolic diseases	2041	478,9
Mental disorders	580	136,1
Diseases of the circulatory system	7457	1749,7
Respiratory diseases	831	195,0
Diseases of the digestive system	614	144,1

Figure no. 10. New cases of cancer taken out in 2012, of which women



In 2012, there was an increase in the prevalence of most chronic diseases, the highest values being recorded in descending order, in the following categories of diseases: hypertensive diseases, ischemic heart disease, diabetes, chronic

obstructive pulmonary disease. There is an increasing trend in the number of chronic conditions in Sibiu County in recent years. Regarding the incidence of tumours, in 2012 there were recorded a total of 11848 cases of tumours, of which 1325 were new cases. Of these, 569 were women, a percentage lower than that of men.

The repercussion of illnesses in people of working age is made on the labour force, so on the economics. This is reflected by temporary or permanent incapacity for work, namely the number of days of sick leave granted (table no. 3).

Table no. 3. Structure of sick days granted in 2012 in Sibiu on the main causes of disease

Cause of temporary disability by class of diseases	No. of sick leave granted	Structure at % of the total
<i>Total</i>	87501	100
Tumour	9684	11.07
Circulatory system diseases	7761	8.87
Respiratory diseases	12040	13.76
Digestive system diseases	7876	9
Diseases of the osteo-articular and muscular system and conjunctive tissue	15762	18.01
Injury and poisoning	13360	15.27

Conclusions:

Through this study, we aimed at highlighting the main problems of public health of Sibiu County population in order to represent a starting point to deepen and widen the investigation of health status. The results represent data that can form a basis for policy and resource allocation and decision taking in both the health system and the labour market. In the current socio-economic, cultural and healthcare context, both globally and nationally, the demographic transition phenomenon is recorded characterized by low fertility and mortality and thus of the active population.

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