# PROVIDING THE POPULATION OF THE COUNTY OF SĂLAJ WITH MEDICAL STAFF FOR THE PRIMARY HEALTHCARE

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Abstract: The activity of the health network plays an important part in establishing the structure and dynamics of the health status. To assure the population's medicalhealth care, the physician plays a preponderant part within a complex team. This team should be made up of sanitary auxiliary personnel with middle education in different specialities, as well as technicians with higher education, radiological and laboratory physicians, chemists, biologists, psychologists, physicists, etc. The conference of the World Health Organization that took place in Alma-Ata in 1998, tackled the problems of "primary care" and it was mutually agreed by all the participating countries, to establish the way this one should look in the 21 st century.

**Keywords:** primary care, family physicians, nurses, community nurses.

Rezumat: Activitatea rețelei sanitare are un rol important în determinarea structurii și dinamicii stării de sănătate. Pentru asigurarea asistenței medico-sanitare a populației, un rol preponderent îl are medicul care lucrează într-o echipă complexă, alcătuită din personalul mediu și auxiliar sanitar, pe diferite profile, precum și tehnicieni cu pregătire superioară, medici radiologi și de laborator, chimiști, biologi, psihologi, fizicieni etc. Asistența primară reprezintă veriga de bază în asigurarea serviciilor de sănătate a populației. Conferința Organizației Mondiale a Sănătății de la Alma-Ata, din anul 1978, a tratat problemele "asistenței primare" și a stabilit de comun acord cu toate țările participante, cum ar trebui să arate aceasta în secolul 21.

Cuvinte cheie: asistență primară, medici de familie, asistente, asistente comunitare.

### INTRODUCTION

The policy "Health for all in the 21<sup>st</sup> century", in Target 15: primary care – An integrated health sector provides that:

 Until 2010, all people of the Region should have a better access to health care primary services, community and family-oriented;

- At least 90% of the countries should benefit from primary care services that should provide the continuity of the medical assistance in an efficient way, by sending the patients towards the secondary and third services, respectively their feedback;
- At least 90% of the countries should have family health physicians who should provide primary health care assistance within an integrated system. Also, there should be a team made up of people working in the health sector, social sector or in other sectors, as well as people within the local communities.

### MATERIAL AND METHOD

The study material is represented by the statistical data of the National Institute of Statistics and the papers of CNOAS. The period of time taken into cosnideration is 2002-2006.

### RESULTS AND DISCUSSIONS

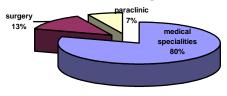
Providing the population with primary preventive and specialized medical assistance is very important. These aspects will be detailed below.

1. In the county of Sălaj, in the year 2007, the number of physicians (without dentists) was of about 296, representing 121,7 physicians per 100.000 inhabitants, being below the average number registered at country level - 194.98 (year 2006), out of which 237 in the urban environment (238,5 physicians per 100.000 inhabitants) and 59 (41,0 physicians per 100.000 inhabitants) in the rural environment.

Out of the total number of physicians, the majority (84,8%) of them are working in public medical units; only 15,2% of the total of physicians are developing their activity in the private sector.

Analysing the structure of physicians per categories and specialities, it may be noticed that the medical specialities hold the largest percentage (80,0%), while the surgery setting holds 13%, and the paraclinical one 7%.

Picture no. 1 – Structure of physicians taking into account the medical categories and specialities.



Out of the medical specialities, family medicine represents 48,1%.

More than a half of the number of physicians in the county of Sălaj are women (62,8%) and 37,2% are men; only 19,9% of the total number of physicians develop their activity in the rural environment and 80,1% in the urban one.

**2.** The assessment of the population coverage with physicians taking into account the relation: number of inhabitants / number of physicians and the comparison per counties, urban environment/rural environment or regions:

The coverage rate, the number of inhabitants per one physician in the year 2007 is of 821,48, as against 460 inhabitants – the average recorded at country level (year 2006). While in the urban environment, the rate is of 419 inhabitants per one physician, in the rural environment this rate is three time higher than the total rate, of 2437,4 inhabitants per one physician.

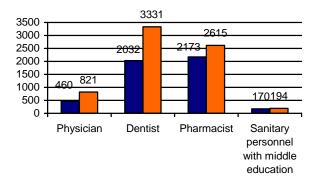
The coverage with physicians per regions and urban/rural environment is presented in the table below. (for regions – data available in 2005, for the county of Sălaj - the data available in 2005 did not change significantly)

Table no. 1- The coverage with physicians per regions and environment

| Region                | Inha   | abitants<br>physici | •      | Physicians per<br>100000 inhabitants |       |       |
|-----------------------|--------|---------------------|--------|--------------------------------------|-------|-------|
| 8                     | Total  | Urban               | Rural  | Total                                | Urban | Rural |
| Total                 | 460    | 278                 | 1768   | 222,2                                | 358,3 | 56,6  |
| North-East            | 564    | 286                 | 2778   | 177,2                                | 349,6 | 43,9  |
| South-East            | 655    | 426                 | 1982   | 152,6                                | 234,5 | 50,5  |
| South-Muntenia        | 773    | 430                 | 1773   | 127,3                                | 232,4 | 56,4  |
| South-West<br>Oltenia | 514    | 295                 | 1536   | 194,6                                | 339,2 | 65,1  |
| West                  | 367    | 260                 | 1316   | 272,4                                | 384,5 | 75,9  |
| North-West            | 407    | 240                 | 1770   | 245,9                                | 415,5 | 56,5  |
| Sălaj                 | 821,48 | 419,0               | 2437,4 | 121,7                                | 238,5 | 41,0  |
| Centre                | 465    | 313                 | 1732   | 214,9                                | 319,5 | 57,7  |
| București-Ilfov       | 203    | 188                 | 972    | 492,5                                | 532,8 | 102,9 |

If the number of physicians in the North-West region is comparable with that at county level, in the county of Sălaj, there is an increased deficit of physicians, both in the urban and rural environment.

Picture no. 2 – Distribution of the population on personnel categories



■ Romania ■ county of Salaj

The analysis of the personnel categories per age groups reveals the following: half of the number of the specialized physicians is above the age of 45, meaning that a sustainable policy of personnel is necessary, in order to attract specialized physicians in the county. The lack of the specialized personnel also exists in the case of pharmacists and dentists in the rural environment. Regarding the sanitary personnel with middle education, a fluctuation exists, both in hospitals and in the family health physicians' units, due to migration.

Table no. 2 – The number of sanitary personnel on age groups

| Personnel category              | Total | Under<br>the age<br>of 24 | 25-34<br>years<br>old | 35-44<br>years<br>old | 45-54<br>years<br>old | 55-64<br>years<br>old | Above<br>65 years<br>old |
|---------------------------------|-------|---------------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------------|
| Specialized physicians          | 182   |                           | 40                    | 31                    | 52                    | 52                    | 7                        |
| urban                           | 180   |                           | 40                    | 31                    | 52                    | 52                    | 5                        |
| rural                           | 2     |                           | -                     |                       | -                     | -                     | 2                        |
| Family health physicians        | 114   |                           | 8                     | 18                    | 65                    | 21                    | 2                        |
| urban                           | 57    |                           | 2                     | 3                     | 41                    | 11                    | -                        |
| rural                           | 57    |                           | 6                     | 15                    | 24                    | 10                    | 2                        |
| Dentists                        | 73    |                           | 35                    | 7                     | 9                     | 19                    | 3                        |
| urban                           | 62    |                           | 28                    | 5                     | 9                     | 17                    | 3                        |
| rural                           | 11    |                           | 7                     | 2                     |                       | 2                     |                          |
| Pharmacists                     | 93    | 1                         | 34                    | 9                     | 19                    | 28                    | 2                        |
| urban                           | 74    | 1                         | 27                    | 5                     | 16                    | 24                    | 1                        |
| rural                           | 19    |                           | 7                     | 4                     | 3                     | 4                     | 1                        |
| Middle sanitary<br>personnel    | 1256  | 80                        | 385                   | 368                   | 261                   | 159                   | 3                        |
| urban                           | 1139  | 75                        | 340                   | 348                   | 228                   | 146                   | 2                        |
| rural                           | 117   | 5                         | 45                    | 20                    | 33                    | 13                    | 1                        |
| Auxiliary sanitary<br>personnel | 487   | 11                        | 59                    | 218                   | 170                   | 29                    | -                        |
| urban                           | 452   | 11                        | 52                    | 202                   | 164                   | 23                    | -                        |
| rural                           | 35    | -                         | 7                     | 16                    | 6                     | 6                     | -                        |

### **3**. Primary care:

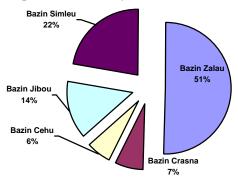
"Alma-Ata Declaration of 1978" issued by the General Assembly of W.H.O., regarding the primary care, mentioned:

- The main problems related to health within the community; the promotion, preventive and curative services supply;
- The education regarding the predominant health problems and the methods for preventing and controlling them; promoting a healthy nutrition, adequate quantity and hygiene of water; basic care services for mother and child; family planning; immunisation against the major infectious diseases; preventing and controlling the endemic diseases with regional character; proper treatment for the current diseases and injuries; providing the essential medicines;
- They should be supported by integrated reference functional systems, leading to a progressive improvement of health care; those who need them most will have priority;
- It is based on the sanitary workers at local and reference level, including physicians, nurses, midwives, auxiliary personnel, but also traditional practitioners, properly trained from the technical and social point of view, in order to work within a team and to answer the health needs expressed by the community.

Thus, primary care services are provided by the family health physicians, who, in the county of Sălaj represent around 1/2 (48,1%) of the medical specialities and more than 1/3 of the total number of physicians (38,8%), in the urban environment, 57,5% of the number of physicians develop their activity and 42,5% in the rural one. A number of 113 medical offices are established (54 in the urban environment and 54 in the rural one),

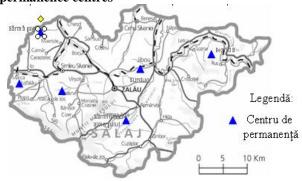
The number of the family physicians who are working in these medical offices is of 114, out of which 57 in the urban environment (50%) and 57 in the rural one (50%), in comparison with the proportion of the population of the urban environment 99.353 inhabitants (40,9%) and for the rural environment - 143.804 inhabitants (59,1%). Yet, there are 11 villages without any physician.

Picture no. 3. – Distribution of the family physicians per hospital areas in the year 2007



Regarding the primary care assistance, with a view to provide emergency medical services, a number of six permanence centres were set up in the rural environment, in the villages of Crasna, Ileanda, Nuşfalău, Sânmihaiu Almaşului, Sărmăşag and Surduc.

Picture no. 4. – Territorial distribution of the permanence centres



Regarding those 113 medical units, a number of 166 nurses develop their activity, out of which 84 in the urban environment and 82 in the rural environment, representing 1,46 nurses per one physician, as against the average of 1,3 nurses per one physician, registered at country level.

Also, mention must be made of the fact that at the level of the communities, a number of 18 community medical assistants develop their activity; all of them in the rural environment.

Table no. 3 – The coverage with personnel in the family medical offices, community medical assistants, villages without physicians.

|       | No. of<br>family<br>medical<br>offices | No. of<br>family<br>health<br>physicians | No. of inhabitants | No. of<br>persons<br>registered<br>with the<br>family<br>physician | No. of<br>nurses | No. of<br>community<br>assistants | No. of villages<br>without a<br>physician |
|-------|--|--|--------------------|--|------------------|-----------------------------------|---|
| Total | 113                                    | 114                                      | 243157             | 233624   | 166              | 18                                | 11  |
| Urban | 57                                     | 57                                       | 99535              |  |                  | 0                                 | 0   |
| Rural | 56                                     | 57                                       | 143804             | 119838 *   | 82               | 18                                | 11  |

The number of inhabitants per one family physician in the year 2007 was of 2132, lower in the urban environment (1743 inhabitants/physician) than in the rural environment (2523 inhabitants/physician), and the later is higher than the country average.

The population registered with the family physician represents 96 % of the total number, resulting 1996 inhabitants per one physician, more in the rural environment (2102) and less in the urban one (1996,2).

The level of coverage with personnel in the sector of primary care, expressed in the number of inhabitants /personnel per total, both in the urban and rural environment, as well as per regions, is emphasised in the table below:

Table no. 4. The level of coverage with personnel in the sector of primary care, expressed in the number of inhabitants /personnel per total, both in the urban and rural environment.

| Region             | No. of<br>inhabitants/<br>physician | No. of<br>registered<br>persons/<br>physician | No. of<br>inhabitants/<br>nurse | No. of<br>inhabitants/<br>community<br>assistants | Villages<br>without a<br>physician |
|--------------------|-------------------------------------|---|---------------------------------|---|------------------------------------|
| Total              | 2041                                | 1815  | 1571                            | 45240   | 98                                 |
| North-East         | 2324                                | 2031  | 1636                            | 27259   | 15                                 |
| South-East         | 2320                                | 2019  | 1666                            | 34294   | 15                                 |
| South-Muntenia     | 2180                                | 1874  | 1521                            | 61678   | 15                                 |
| South-West Oltenia | 1863                                | 1613  | 1305                            | 24278   | 4                                  |
| West               | 1657                                | 1561  | 1502                            | 87748   | 11                                 |
| North-West         | 1976                                | 1914  | 1321                            | 85544   | 19                                 |
| Centre             | 1814                                | 1669  | 1744                            | 97326   | 19                                 |
| BucIlfov           | 1657                                | 1462  | 2049                            | 76151   | 0                                  |
| Urban              | 1950                                | 1853  | 1612                            | 111031  | 0                                  |
| North-East         | 2020                                | 1965  | 1570                            | 135036  | 0                                  |
| South-East         | 2221                                | 2028  | 1717                            | 68670   | 0                                  |
| South-Muntenia     | 2095                                | 1904  | 1550                            | 69458   | 0                                  |
| South-West Oltenia | 1957                                | 1868  | 1710                            | 219212  | 0                                  |
| West               | 1643                                | 1672  | 1449                            | 72205   | 0                                  |
| North-West         | 1864                                | 1900  | 1341                            | 484611  | 0                                  |
| Centre             | 1749                                | 1670  | 1743                            | 302996  | 0                                  |
| BucIlfov           | 2071                                | 1855  | 2046                            | 90862   | 0                                  |
| Rural              | 2165                                | 1762  | 1523                            | 26265   | 98                                 |
| North-East         | 2626                                | 2096  | 1691                            | 16913   | 15                                 |
| South-East         | 2455                                | 2005  | 1606                            | 21116   | 15                                 |
| South-Muntenia     | 2244                                | 1851  | 1502                            | 57101   | 15                                 |
| South-West Oltenia | 1785                                | 1401  | 1183                            | 13449   | 4                                  |
| West               | 1681                                | 1363  | 1605                            | 140593  | 11                                 |
| North-West         | 2122                                | 1734  | 1391                            | 44261   | 19                                 |
| Centre             | 1920                                | 1666  | 1745                            | 48357   | 19                                 |
| BucIlfov           | 2463                                | 1860  | 2073                            | 29914   | 0                                  |

The population coverage with medical personnel, who develop their activity in the family medical units, per country and regions is presented in the table below:

Table no. 5. The population coverage with medical personnel, who develop their activity in the family medical units, per country and regions is presented in the table below: (per 100.000 inhabitants)

| Region*               | Physicians | Nurses | Community medical assistants |
|-----------------------|------------|--------|------------------------------|
| Total                 | 48,99      | 63,67  | 2,21                         |
| North-East            | 43,03      | 61,10  | 3,66                         |
| South-East            | 43,10      | 60,04  | 2,91                         |
| South-Muntenia        | 45,87      | 65,72  | 1,62                         |
| South-West<br>Oltenia | 53,67      | 76,65  | 4,11                         |
| West                  | 60,34      | 66,56  | 1,13                         |
| North-West            | 50,59      | 53,70  | 1,16                         |
| Centre                | 55,12      | 57,34  | 1,02                         |
| BucIlfov              | 47,54      | 48,81  | 1,31                         |

<sup>\*</sup> data available in 2005

Table no. 6. Physicians and sanitary personnel with middle education in some of the European Union countries (per 100.000 inhabitants)

| 2005                 |            |                                 |  |  |  |  |
|----------------------|------------|---------------------------------|--|--|--|--|
| COUNTRY              | PHYSICIANS | MIDDLE<br>SANITARY<br>PERSONNEL |  |  |  |  |
| Austria              | 354,22     | 613,27                          |  |  |  |  |
| Belgium              | 466,98     | 1341,31                         |  |  |  |  |
| Bosnia - Herzegovina | 141,80     | 437,22                          |  |  |  |  |
| Bulgaria             | 364,96     | 404,28                          |  |  |  |  |
| Croatia              | 249,89     | 517,21                          |  |  |  |  |
| Czech Republic       | 355,49     | 851,60                          |  |  |  |  |
| France               | 340,29     | 747,93                          |  |  |  |  |
| Germany              | 340,20     | 773,32                          |  |  |  |  |
| Hungary              | 278,13     | 877,17                          |  |  |  |  |
| Island               | 373,14     | 943,1'31                        |  |  |  |  |
| Ireland              | 283,46     | 1540,63                         |  |  |  |  |
| Italy                | 385,59     | 697,16                          |  |  |  |  |
| Norway               | 369,29     | 1531,08                         |  |  |  |  |
| Portugal             | 344,34     | 458,84                          |  |  |  |  |
| Rep. Moldova         | 308,27     | 706,42                          |  |  |  |  |
| Romania              | 194,98     | 372,18                          |  |  |  |  |
| Russia               | 424,63     | 797,52                          |  |  |  |  |
| Macedonia            | 215,93     | 477,88                          |  |  |  |  |

It may be observed that Romania is placed on the last place in Europe regarding the coverage with physicians and middle sanitary personnel.

Planning the medical sanitary personnel is essential for the functioning of the medical services, and for providing the access to the quality medical services. Personnel planning should be flexible and correlated to the structure and development of the health services system.

The coverage with medical personnel is a main factor in the decentralization factor of health services.

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