

The Problem of the Sanitary System in the Land of Severin With Respect to Regional Development

Cristiana VÎLCEA¹, Amalia BĂDIȚĂ¹

¹ University of Craiova, Geography Department, 13, A.I. Cuza Street, Craiova, Romania, e-mail: cristiana_oana@yahoo.com

Received on <January 12, 2011>, revised on <March 18, 2011>, accepted on <April 26, 2011>

Abstract

The difficulties with the health system, occurred after 1989, are mainly induced by the lack of appliances and human resources and by the natural consequences due to the interruption of the reform process, which negatively influenced the repartition of medical service within the urban and rural spaces, in the Land of Severin. The supply and access to medical services are the major problems concerning the assurance of a better living standard and also social and economic development, especially in rural areas. Villages with a dispersed population (in the mountainous and piedmont area in the Land of Severin), represent quite a unique challenge for the management and use of medical services. The claim to improve the support is laid by vulnerable groups, as elders and those who live in isolated places (e.g. Marga, Negrușa and Moisești villages) or people who compulsorily need dialysis three times a week. The low level of economic development have induced problems concerning the existence, the quality and accessibility of social services and difficulties in case of temporary or permanent health care services.

The present reformation measures take into consideration the way of organization and operation of health care services, the problem concerning the financial means and equipment of sanitary units and, the provision of last generation medical technique correlated with a continuous training process of medical staff and health care personnel.

Currently, by means of the Local Development Programme 2006 – 2013 and with the help of the European structural funds, the authorities want to establish and implement a special programme to modernize the medical cabinets in villages, to convey pharmaceutical products to this area, to eliminate the daily travel of doctors and to provide ideal conditions for them and for the nurses to integrate into local communities.

Keywords: *medical services, economic development, rural space, medical units, medical personnel*

Rezumat. Problema sistemului sanitar în Țara Severinului prin prisma dezvoltării regionale

Dificultățile înregistrate în sistemul de sănătate, după 1989, sunt generate, în principal, de lipsa resurselor materiale și umane și de consecințele firești ale stagnării procesului de reformă, care au influențat negativ repartitia serviciilor medicale în cele două medii, urban și rural, din Țara Severinului.

Furnizarea și accesul la serviciile medicale reprezintă o problemă cheie pentru asigurarea unei mai bune calități a vieții, dar și pentru dezvoltarea economică și socială, în special a zonelor rurale. Acestea, mai ales cele cu populație dispersată (zona montană și de podiș din Țara Severinului), reprezintă provocări unice pentru gestionarea și utilizarea serviciilor medicale. Necesitatea îmbunătățirii sprijinului acordat grupurilor vulnerabile, cum ar fi vârstnicii, mai ales cei care trăiesc în locuri izolate (Marga, Negrușa, Moisești), sau a bolnavilor care necesită în mod obligatoriu dializă de 3 ori pe săptămână. Nivelul scăzut de dezvoltare economică a generat probleme legate de existența, calitatea și accesibilitatea serviciilor de asistență socială și în special în cadrul serviciilor de îngrijire temporară sau permanentă.

Actualele măsuri de reformă se adresează atât restructurării modului de organizare și funcționare a serviciilor destinate îngrijirii sănătății, dar și în sensul dotării și reutilizării unităților sanitare, asigurarea de tehnică medicală de ultimă oră, dublată de un proces de formare continuă a personalului medical și a personalului de îngrijire.

În prezent, prin Programul de Dezvoltare Locală 2006-2013, cu ajutorul fondurilor structurale europene, se dorește elaborarea și aplicarea unui program special pentru modernizarea dispensarelor comunale, asigurarea acestora cu medici, crearea de puncte farmaceutice și farmacii sătești, eliminarea navetismului medicilor și asigurarea de condiții concrete pentru ca medicii și cadrele sanitare să se integreze în comunitățile locale.

Cuvinte-cheie: *servicii medicale, dezvoltare economică, mediu rural, unități medicale, personal medical*

INTRODUCTION

The problems concerning the sanitary system in the analysed region, were mainly inherited from the

previous political system, and are not represented only by the accessibility to medical services, but also by the quality of services offered to the population by means of the social insurance system or on payment.

These problems are the following: deficiencies in medicine, the lack of medical technology for investigations and treatment, the deterioration of medical units, the low salaries of medical staff and also the domesticated practice of “informal payment” (given by the patient for the services received), which has a negative influence upon the quality of services and subsequently upon the health of the population, especially in rural areas.

By the introduction of the new social insurance system and the new medical services (family doctors providing the primary medical assistance), the authorities have tried to improve the sanitary system and have selected the patients, who normally commute for simple treatments provided by the hospitals located in the cities, in order to abolish the reasonless overworking of the hospitals and the medical staff.

The supply and the access to medical services make provisions for high living standard and function as the impelling force of economic and social development, especially in rural areas. These elements constitute some of the most representative indicators of the living standards of the population and, the economic and social prosperity of the society. The World Health Organization defines health as “not in the absence of illness, but as a good and complete status at the physical, mental and social level”. In this respect, the infrastructure of the territory plays an important role in ensuring accessibility.

The process of advanced aging, characteristic of the Land of Severin, generates severe problems regarding the existence, the provision, the quality and the accessibility of medical services.

DATA AND METHODS

The study was realized by using statistical data collected from the Institute of Statistics in Drobeta Turnu Severin. These data were processed in order to outline the aspects regarding the sanitary system, which characterize the studied region and the major problems, but also to find acceptable solution to improve the present system in the long run.

For better understanding of the above mentioned facts, it would be useful to graphically represent the statistical data and the calculated values, thus the spatial distribution of the studied elements could be simply observed, and also the dimension of the whole phenomenon at regional level. In this respect we obtained graphics and maps using ArcGis 9.3 programme.

The last relevant stage in this study was the analysis and the interpretation of the obtained results, which supplement the image formed about the

sanitary system in the Land of Severin, and the determination of the negative and problematic aspects, that specify the system influenced by such internal and external factors, that exist in the surrounding environment. With the help of statistical data available for 2009 and 2010, we calculated the accessibility index of the population to medical services. The values are represented in a map (Fig. 1) displaying the accessibility of settlements according to different types of medical services, starting with the primary ones until those specialized and complex located in medical centres to an appreciable distance outside the studied region.

RESULTS AND DISCUSSIONS

As it was mentioned before, the major problems of the sanitary system in the Land of Severin are related to the deficient operating of hospitals, non-operating medical devices, in some cases due to their physical wear, and if there are any high performance equipments they are not always used because the personnel is not specialized or is missing. A specialized modern medical centre, which provides medical services for its patients with renal diseases, is the Renamed Medical Centre in Drobeta Turnu Severin. The lack of qualified personnel at certain departments, as well as in primary medical assistance and also in specialized clinics and hospitals, considered unattractive (especially in the rural areas). As, for the medicine supply system, pharmacies have a miserable existence in such rural and urban areas that are found in a precarious economic situation due to the absence of the funds necessary for investments to improve infrastructure. This contributes to the ingravescence of the sanitary system.

The existence and the efficiency of medical services in rural areas are affected by significant lack of infrastructure and its deficiencies influence not only the economic development of the region, but also the quality of life. The most important problems are connected with the quality and density of transport network that creates difficulties regarding the accessibility of medical services, and has a negative impact on the doctors commuting between urban and rural areas (Figure 1). In the rural areas, the difficulties, caused by long distances, have to be solved in due time to reach a nearby medical centre. This situation most of the time, oblige the population, to use traditional remedies or treatments based on their empirical experiences.

The accessibility index to sanitary services takes into account gravitational principles where partial indicators of the specific accessibility to various types of medical services are estimated

depending on a numerator determined by the structures that the mentioned services provide, while the denominator is such variable, which role is to determine the quantity and the quality of the request (Tudora D., 2010).

In order to notice how the population responds to different sanitary services, starting with the elementary unit of to the family doctors' through the complex and specific ones, that have an upper level sanitary specializations (cardiology, surgery, psychiatry, etc.), to the centres of cities or communes, which function is to polarize the medical services, medical centres have been divided in three categories:

- *inferior centres*, that are weakly specialized and also, divided in two categories: (1) centres that provide local services, including most of the communal centres with a surgery office, a pharmacy or a dispensary, and (2) medical-social centres that are for the benefit of some units with slightly qualified medical personnel, and are equipped with hospitalization structures and have an ambulance service (only one commune, Balta, has ambulance services);
- *average centres*, with three types of medical services: (1) urban, (2) municipal and (3) county medical services;
- *superior centres*, that include settlements capable to fulfil very specialized medical functions, namely: genetics, research laboratories, plastic surgery, neurosurgery etc. However, these types of services are not to be found in the analysed region.

To obtain values for the synthetic index of accessibility to sanitary services, a series of partial indicators were used. These are the accessibility of the population to settlements (including all the communes that have a medical cabinet or a pharmacy) with elementary services (A_{se}); the accessibility of the population to settlements with medical-social institutions (A_{su}); the accessibility of the population to settlements that have urban hospital centres, and eventually policlinics (A_{so}); the accessibility of the population to settlements with municipal type hospitals (A_{sm}); the accessibility of the population to settlements with county hospitals (A_{sj}) and the accessibility of the population to settlements that have complex, highly specialized hospital institutions (A_{sc}), the latest ones being located outside the region great distances from most of the settlements in the Land of Severin. The closest hospital units with complex services are found in Craiova (to an average distance of 110 km from the settlements located in the analysed region) or in Timișoara (to an average distance of 240 km). These average distances are enormous, taking into

consideration severe cases that needs immediate medical assistance (severe burns, casualties requiring operation, disorders requiring transplants, amputated limb, etc.). The fastest way of transportation is the travel by air (mainly by helicopter) or by road, provided that the destination is Craiova.

The two gravitational forces, taken into consideration, are represented by the population residing in the attended locality or/ commune and by the active, working population in the sanitary area of the locality/ commune. In this respect, the absence of some essential services, like the ones assured by individual medical cabinets or pharmacies, induces negative and more acute conditions than the absence of highly specialized medical centres or medical research laboratories.

The formula, suitable to calculate the synthetic index of accessibility to sanitary services is the following:

$$A_s = A_{se} + A_{se} \times A_{su} + A_{su} \times A_{so} + A_{so} \times A_{sm} + A_{sm} \times A_{sj} + A_{sj} \times A_{sc}$$

To obtain the values of the synthetic index of accessibility to sanitary services, at first it is necessary to calculate the partial indicators. In this respect, we will exemplify the formulae of the applied method to obtain the indicator of accessibility to elementary (proximal) medical services and to get their values for the settlements in the Land of Severin:

$$A_{se} = \frac{P_s \times P_{0-20}}{d^3 \times P_v}, \text{ where:}$$

the variables are (for each settlement): P_s (the population working in the sanitary sector); P_{0-20} (the number of people aged between 0 and 20 years); P_v (the number of people aged over 65 years), d (the distance in time away from the first locality that provides elementary medical services).

Because of the analysed region is mainly rural (92% of the entire territory is rural – 21 communes and 2 cities), it was decided that the values of the synthetic index of accessibility to sanitary services is mapped at the level of administrative territorial unit (Figure 1).

The values obtained have been classified in five categories depending on the accessibility of the population to medical services. It has resulted five types of ATUs. In the case of the first type, settlements have high accessibility to sanitary services (only 8.28% from the total number of settlements). These ATUs are represented by the two urban centres (Drobeta Turnu Severin and Baia

de Aramă) and the rural settlements in their administrative area.

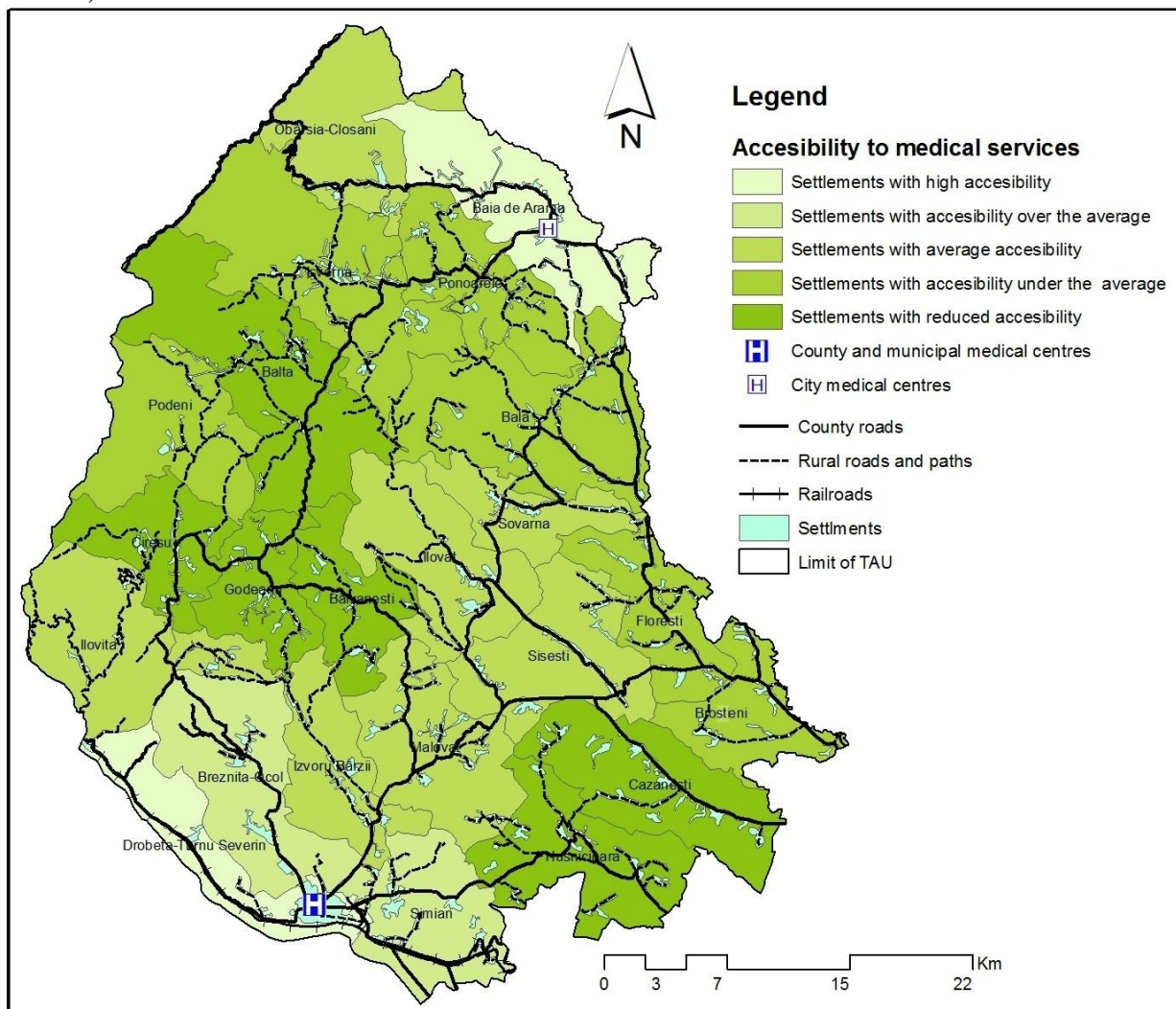


Fig. 1. The typology of the settlements depending on their accessibility to the medical services in the Land of Severin

The high accessibility arises from the punctual presence of certain medical-social units, but without numerous medical personnel, and these units have the perspective to become local centres of the medical services. The second category includes the Șimian and Breznița-Ocol communes, located in the immediate vicinity of Drobeta Turnu Severin municipality, with settlements (7.64%) that have accessibility to medical services over the average. The third category includes seven communes (Ilovăț, Ilovița, Izvoru Bârzii, Malovăț, Obârșia-Cloșani, Șișești, Șovarna), with 21.65% out of the total number of settlements located in the Land of Severin. The category labelled to “settlements with accessibility to medical services under the average” includes the greatest number of settlements 35.66% out of the total. The last category represents only 26.75% of the settlements, that have reduced accessibility to medical services. Although, it is a well-represented category, most of the settlements

strive against the same type of deficiencies: isolated position from the centres that provide superior medical services, inadequate organization of the local sanitary services, heavy dependence on the services offered by communal centres with poor accessibility and modest equipment (Tudora, 2010).

Another problem is generated by the lack of qualified personnel in certain areas, that is considered unattractive (especially rural settlements – Figure 2), both in the area of primary medical assistance and in the specialized medical service area.

Regarding the number of medical units (dispensaries, policlinics and hospitals of any ranks) and pharmacies in the Land of Severin, and the analysis of statistical data, the absence of dentist’s surgery (public or private) is provable in the entire rural area. It was recorded only in urban areas (Drobeta Turnu Severin and Baia de Aramă). The ratio of medical units and pharmacies between the urban and the rural areas shows major differences,

in this particular case the urban Drobeta Turnu Severin has 47 medical units (out of which

5 are county hospitals and 7 are urban medical units) and 38 pharmacies, conversely in the rural areas the average number of medical cabinets varies

between 1 and 3, and pharmacies are missing from most of the settlements (only 19% out of the 21 communes have a pharmacy, these are Bala, Broșteni, Ilovăț and Șimian).

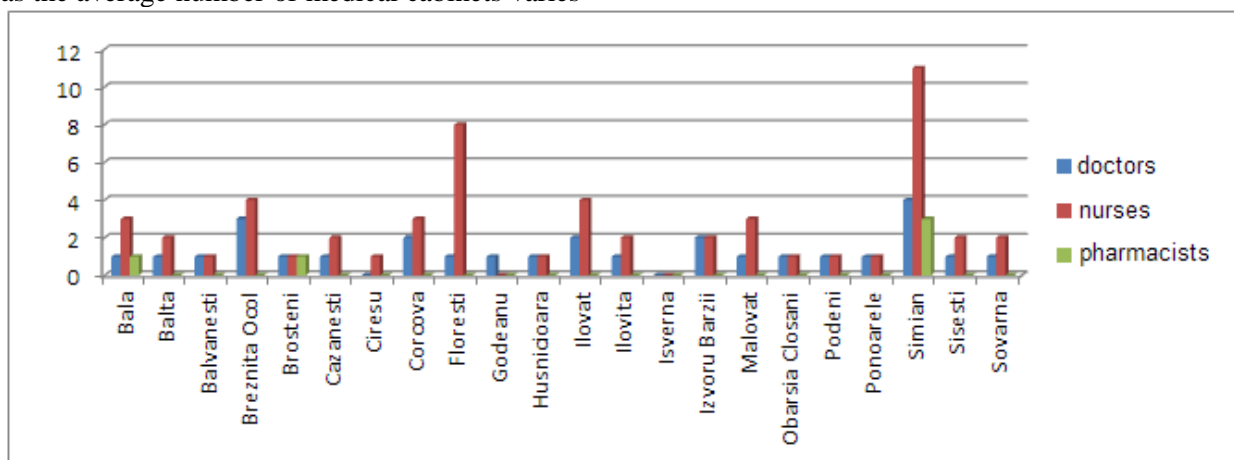


Fig. 2. The medical personnel existing in the rural areas in the Land of Severin

The territorial distribution of the medical cabinets in the Land of Severin is mainly concentrated in the

south-western part that corresponds to the area where the population density is the highest (Figure 3).

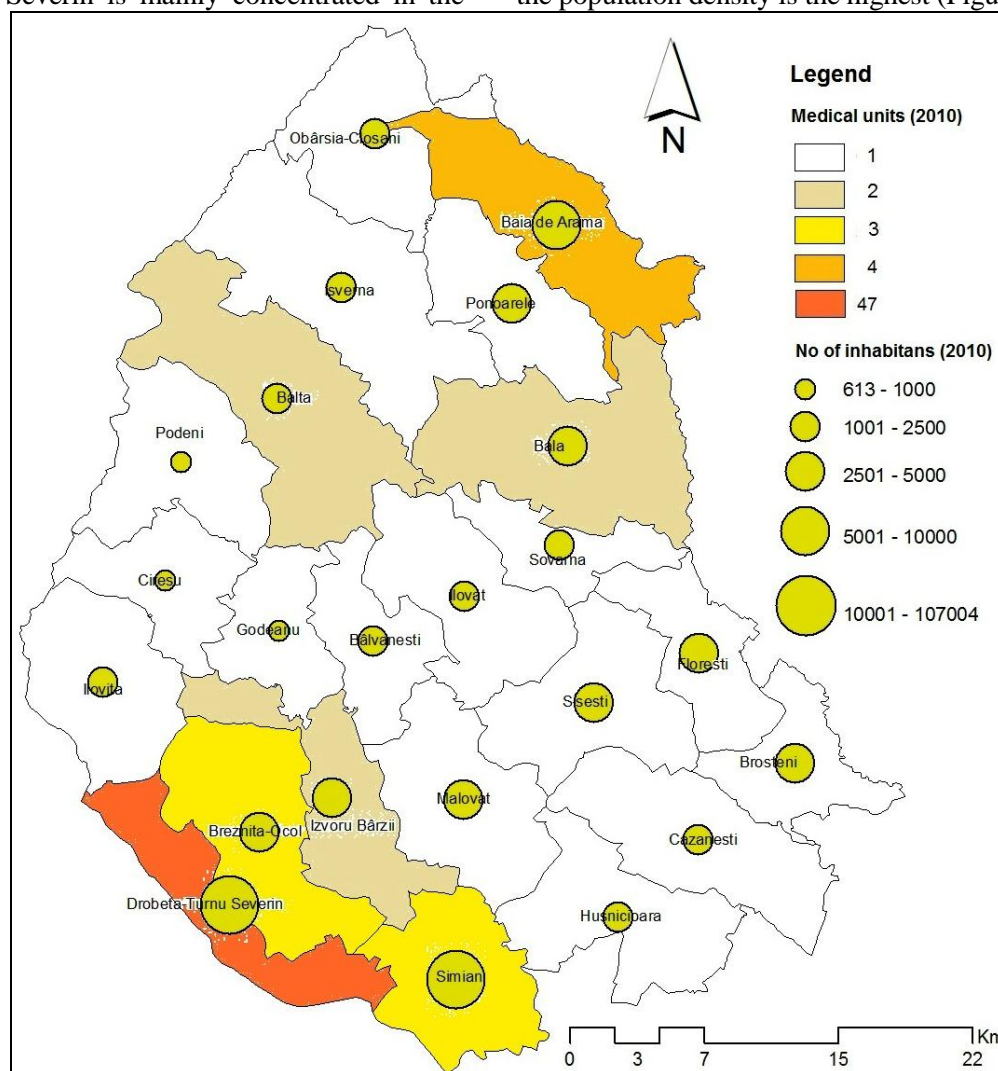


Fig. 3. The distribution of the medical units existent in the Land of Severin

The lack of sanitary services at the level of village (dispensaries are found only in communes) is the consequence of the social-economic deficiency in the region (which corresponds to the poorest regions of Romania), the poor operating conditions, that vulgarize such general medical services, that resulted in the degradation of other social and social-demographic factors: high morbidity, the lack of medical qualification, reduced average life expectancy, high infant mortality.

However, in the rural area there are also a few modern centres specialized in medical assistance. For example, in the village of Bunoaica (Cireșu commune) is about to finish the works on the Medical Care and Assistance Centre for people suffering from Alzheimer's disease and senile dementia. The number of these people increased a lot during the latest period. The centre has the capacity of 32 places and the patients will receive special conditions of medical assistance and care. Another modern medical centre, for the care of people suffering from handicap is located in the Ilovăț commune. Both centres have been created with the help of the foreign European structural funds.

The above emphasised difference shows higher preoccupation of the services of medical assistance in urban areas. The city of Drobeta Turnu Severin has a series of modern, public and private medical cabinets, but also several pharmacies. Although, it is the second largest urban area in the Land of Severin, Baia de Aramă could not provide similar medical offer. In the public sector, it has only 2 hospitals, 1 policlinic and 1 dispensary in the village of Mărășești. On the other hand, the communes in the Land of Severin have a reduced number of dispensaries, and the absence of pharmacies represents a major risk for the population living in this region, because most of the times the elders, who need medical assistance, supervision and corresponding medical treatment, are compelled to go to the city for different health provisions. Generally, rural dispensaries are, located in old deteriorated buildings without the minimum required medical equipments or medicines, showing their precarious condition which determine to include the sanitary system from this area into a reduced level of medical assistance granted to people, the ratio of inhabitants to doctors is also unfavourable (Figure 4).

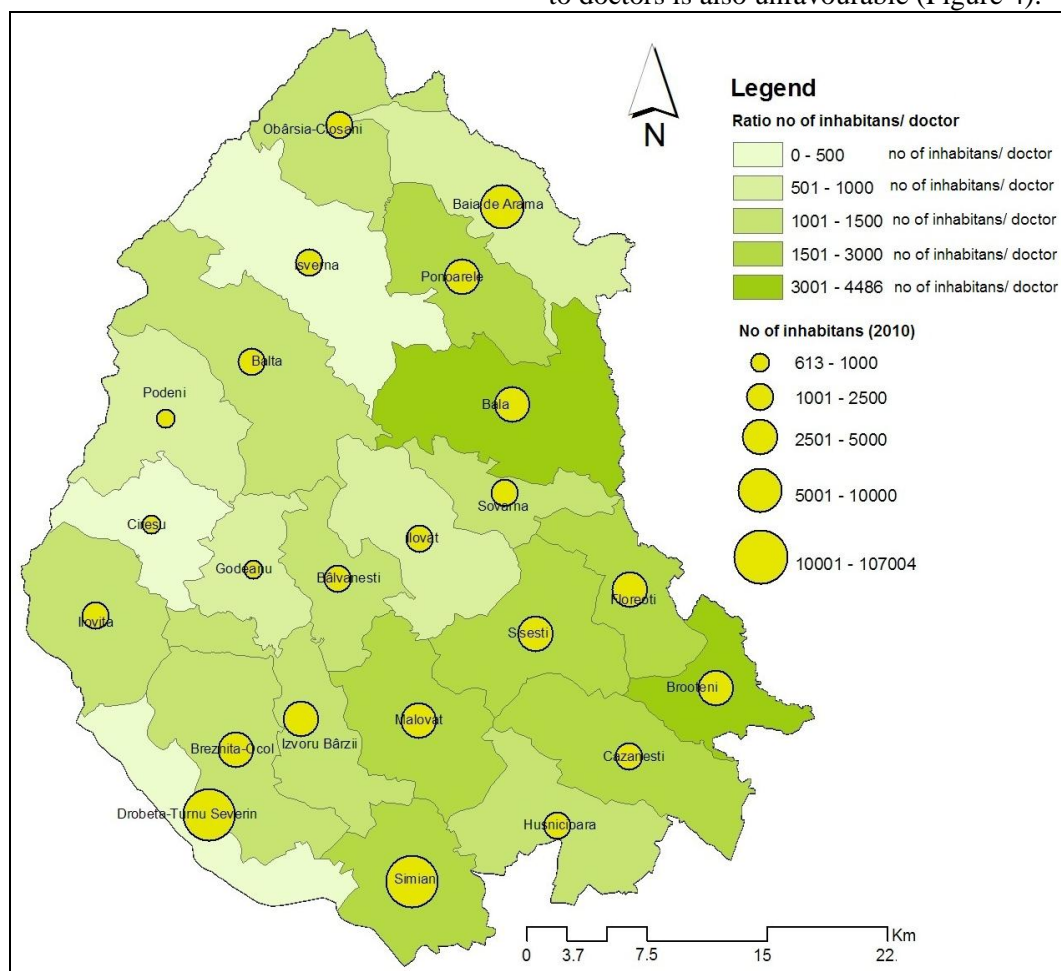


Fig. 4. The ratio of doctors to the total number of inhabitants

Regarding this ratio, the statistics are the following: in 18% of the communes the number of patients is between 500 and 1,000 per doctor, in 36% of the ATUs the number is between 1,000 and 1,500 persons, in 27% between 1,500 and 3,000 patients per doctor, and in 9% of the communes the number of patients is between 3,000 and over 4,500 per doctor. It is observable that not every person living in the above mentioned communes is registered on the lists of family doctors, but due to the social insurance system each person with no medical insurance benefits from the general primary medical services or from the emergencies. The average number of patients for whom it is obligatory to receive monthly consultancy, especially in settlements with numerous aged population is considerably high. Supposing that all people are registered in the medical system of a family doctor and that they respect the recommendation to see a doctor at least twice a year for general control, (children up to 1 year, pregnant women and elders over 65 year need monthly health provision). The number of patients who need permanent monthly provision reaches even 50-60 people per day. Excluding the week-ends, it is impossible to assure qualitative medical provisions during 8 hours of normal programme. It must be taken into consideration the fact that a family doctor has to provide health provisions also at home for people who cannot come to the surgery. Sometimes the distance between the villages of a commune reaches even 10 kilometres. The transport is arranged by car, by bike or by wagon, and the unpaved roads make it even more difficult to reach the destination in a reduced time. Provided that the doctor or the nurse has the possibility to work, even without any breaks, each patient would have almost 7 minutes for the entire consultancy, which is not sufficient for a quality service.

The extended expectation to benefit from medical consultancy is another problem that was indicated by the population living in the rural area and, more and more suffering from the lack of medical personnel and medical units. From the data supplied by the health service statistics becomes evident that more than half of the Romanians do not know their rights and obligations regarding the medical insurance, and over 80% of the insured people do not know at all or have vague information about the medical services they are entitled to. The lack of information regarding the legislation or the operation of public medical system is also experienced by doctors.

In case of comparing the number of doctors to inhabitants in the rural and the urban areas, it is based on the statistical data valuable for 2010. The result emphasizes the difference regarding the medical personnel existing in the two areas. The values obtained for the entire region and, for the two areas, are found in the Table 1 below.

Table 1

	doctors	inhabitants	average
urban	293	113203	386
rural	28	57923	2069

CONCLUSIONS

The implication of health services into the routine of the community has increased compared to 15 years ago, and this influences especially those groups that are not educated enough to visit a doctor in time, in order to prevent or to avoid the illness, and those, who live in areas where the sanitary facilities are hardly accessible. In order to improve the medical services at regional level, it is necessary to multiply the health centres in case of the rest of the rural settlements (not the commune seats), including for minor affection, with permanent medical staff that can perform a series of activities that does not require the presence of a doctor. The uneven distribution of health services, the urban-rural differences are serious problems in respect to the infrastructure. There are isolated settlements, in the rural areas, where the population does not have accessibility to dispensaries that provide primary medical services, or the problem is that these dispensaries exist, but they do not have permanent doctors. What is still worse is the fact that the poor or aged population, therefore with reasonable demand on medical care, particularly face these problems. At present, there are not any policies that make these underprivileged areas attractive to doctors. The problem, regarding family doctors in the rural areas of the Land of Severin, is a serious one.

The distribution of the indicator regarding the accessibility to sanitary services has a particular geographical importance. Sanitary services have always been the latest ones when talking about the service of a territory, because of the financial interests of private and public actors acting in this area (Tudora, 2010).

The mechanisms to perform the previously mentioned proposals are first of all financial types. They increase the incentives of the medical personnel in the rural areas, especially in those that are not supplied with medical provision. These can

be materialized via accomplishing the transportation, extra payments for transport and, financial incentives added to salaries. Medical assistance can also be improved by finding new methods to provide primary medical assistance based on multidisciplinary teams able to assure continuity in medical provision.

The aim of these measures is to increase the accessibility to medical assistance and also the quality of the medical act by extending the services to rural areas, to increase the access of the population to goods and health services, as well as to make the processes and the expenses, acting inside the system, efficient, by emphasizing more the importance of the medical provision for the sake of illness prevention. If the local authorities and the public actors will be able to increase the accessibility to primary medical services, the overworking of the hospitals will be decreased. Thus, hospitals will be able to accomplish more medical, therapeutical and administrative efforts in cases that require hospital treatment according to operating European medical norms, regulations and procedures.

REFERENCES

- Doboş, Cristina, (2006). *Dificultăţi de acces la serviciile publice de sănătate în România*, in journal Calitatea Vieţii, volume XVII, no 1-2.
- Gadrey, Jean, (2002). *De la croissance au developpment: quels indicateurs alternatifs?*, Universite Lille, Lille, France.
- Goschin, Z., Pârlog, C., (2004). *Ierarhizarea multicriterială a regiunilor din România folosind metoda distanţelor relative*, Editura Didactică şi Pedagogică, Bucharest.
- Mincă, D., Marcu, M., (2004). *Sănătate publică şi management sanitar*, Editura Universitară Carol Davila, Bucharest.
- Poenaru, Maria, (2005). *Îmbătrânirea demografică – o provocare pentru sistemul de sănătate*, IRLI, Oeconomica, volume XIV no 3, pp. 69-115, ISSN 1223-0685.
- Poenaru, Maria, (2007). *Sănătatea publică în strategiile de dezvoltare durabilă*, journal Management în sănătate, volume 11, no 3, ISSN 1453-4541.
- Scambler, G., (2002). *Health and social change. A critical theory*, Open University Press, Buckingham.
- Tudora, D., (2010). *Distribuţia geografică a indicilor sociali ai populaţiei rurale din Moldova Apuseană*, Phd thesis.
- Vlădescu, C., Dragomireşteanu, Aurora, Enăchescu, D., (2001). *Politici de alocare a resurselor şi de planificare a personalului medical în sistemele de sănătate. România în context internaţional*, Editura CPSS, Bucharest.
- Voineagu, V., Furtună, F., (2002). *Analiza factorială a fenomenelor social-economice în profil regional*, Ed. Aramis, Bucharest.
- Zarcovic, G., Enăchescu, D., (1998). *Probleme privind politicile de sănătate în ţările Europei centrale şi de răsărit. Evoluţia recentă şi perspectivele sistemului de sănătate în România*, Editura Infomedica, Bucharest.
- *** Barometrele de opinie privind serviciile sănătate realizate în rândul populaţiei din România, Centrul pentru politici şi servicii de sănătate, 2003, 2002.
- *** ECSHD, România – de la aderare la integrare. România – Sectorul de sănătate. Studiu de politică sectorială.
- *** *Raportul dezvoltării umane*, www.undp.org, 2010.
- *** Un sistem sanitar centrat pe nevoile cetăţeanului. Raportul Comisiei Prezidenţiale pentru analiza şi elaborarea politicilor din domeniul sănătăţii publice din România, Bucureşti, 2008.