SUPPLY VS. DEMAND OF HEALTH SERVICES IN THE ACTUAL DEMOGRAPHIC CONTEXT OF ROMANIA

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INTRODUCTION
Aging concerns of governments are intense increasing, with a view to finding solutions to problems caused by this process and reducing their impact on the economy and public service systems. And our country is currently experiencing this phenomenon, knowing the last decade significant changes in population structure.

To meet the challenges of this process, as part of the European Union, Romania must adopt measures in accordance with its directives, but at the same time taking into account the economic, social and cultural specific of the Romanian people.

In foundation and for appropriate decisions on this issue, we need multiple studies with different approaches, in different fields.

Thus, in the health sector is necessary to orientate and conduct studies on issues such as current health of the population and its needs in terms of health care, organization and functioning health system and its ability to meet current needs.

In an attempt to fill in relevant information to take appropriate measures to improve access to health services, this study aims to assess the current health care coverage in the health care system in Romania, also identifying appropriate services in accordance with demographic and current health of the population, with particular emphasis on those offered to older people.

Aim: Evaluation of the current status on health services demand and supply existing especially for elderly.

Objectives: The paper has the following objectives: a) analysis of the legal framework of health services supply, b) need assessment in relation to the demographic and health indicators and c) evaluation of the range of medical services offered in integrated system with or no social services.

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Methods: The study is classified as observational based on descriptive and comparative analysis on secondary data.

Results and discussions: Analysis of the current legal framework revealed the access to medical services is in principal made by health insurance system, being conditioned by insurant status, while accessing of medico-social services depends on local organization of these services by local authorities. Distribution of medical and medico-social facilities, personal assurance and implicit services supply is different between the two residence areas, rural space being less privileged. Differences between the two residence areas were recorded also regarding the expressed needs.

Conclusion: Health services demand is increasing, ones of services being more requested by population (cardiology, oncology, socio-medical care). Actual health services system organization and functioning is not adequate and sustaining for supplying of efficient medico-social integrated services, at home or in different institutions. Supply of health services meets less to specific needs of old people and is affected by the under-funding system and the arbitrary allocation of funds between different types of medical care.

Key words: demand, supply, health services, old people, analysis

METHODOLOGY
Classified as observational studies, the study is based on descriptive and comparative analysis method on secondary data.

Sources of information used to select data that were analyzed were represented by: laws governing health care system and medical-social system in Romania, national statistics and results of investigations carried out at national level on service coverage for entire population or only for the elderly.

To describe the demand for health services, seen as an expression of perceived needs of the population to a supplier, were approached indicators of accessing for different types of services and to establish the potential needs of services were assessed demographic, health and access to various services indicators.

The supply of medical and medico-social care was analyzed especially from the perspective of social health insurance system and the social assistance, by type of assistance, and also highlighting aspects of the organization and operation of the services.
Throughout the analysis was intended to highlight the services and facilities for the elderly, because this category is considered to be the largest consumers of medical services.

Financing of health services was considered as a factor influencing both demand and supply of health services by influencing access.

RESULTS AND DISCUSSIONS

Disparities in access to care appear generally as a result of direct costs supported by the population (co-payment, treatment and hospitalization costs), indirect costs (transport cost, waiting time), geographic inadequate care facilities and uneven quality of services of the same type.

According to some views, in our country the degree of accessibility of the population to health services is influenced by factors related to the organization and functioning of health, the insurant state in social health insurance system, and also individual income levels of people, area of residence, general living conditions (which influences the size and structure needs of care), education and lifestyle [1] [2].

1. Analysis of the legal framework of health services supply

Health system in Romania, developed over time on the basis based on the political, social, economic and cultural context specifically, follows the same principles characteristic of most health systems worldwide known, namely, ensuring universal and equitable access to health services, and freedom of choice for consumers or providers of services and efficient use of available resources.

Regulation, coordination and supervision of the entire health system are provided at central level by the Ministry of Health (MoH), responsible for ensuring cooperation with other sectors impacting on health.

The health services system - a component of the health system - includes human, material, financial, symbolic and informational resources, which used in different combinations, produce care and services to improve and maintain health [3]. The organization and financing of its influence access to health services by the population, cost and quality of services [4].

Analysis of data on access to health services in Romania shows that the main system by which is provided is that of health insurance.

Assured quality is what makes access to the three packages currently offered by the system: the basic package, one that is given to people that ensure voluntary and minimum package of services.

Medical services provided under health insurance and the conditions under which they are offered, are defined by the Framework - contract and its implementing rules, developed by the National Health Insurance in consultation with various professional organizations, employers and trade union representative nationally.

Older people have access to services provided by social health insurance system, without payment of contribution, if they have the quality of pensioners with pension income of less than 740 lei, that are dependent on an insured person or are beneficiaries of the provisions of special laws without having other than income from financial rights granted by those laws. Pay their insurance contribution is due to holding the pension income of more than 740 lei [5].

Services provided elderly does not differ generally from those provided to other age groups and consist of medical services, health care, drugs, sanitary materials, medical devices. Uninsured persons receive medical services provided in the minimum package of services.

Access to the system and higher levels of competence is mainly provided by family doctors who assist non-discriminatory patients and handle all their problems.

Specially medical services provided in outpatient medical facilities and hospitals, authorized and evaluated and dental services are provided by the dental practitioner in dental medical cabinets.

Medical recovery services and home nursing services are granted for a period of time and after a rate determined by the treating physician, by accredited suppliers and evaluated for this purpose.

Drugs with or without personal contribution supported by the health insurance fund, outpatient, are included in the list prepared by the Ministry of Health and National Health Insurance House (CNAS), in consultation with the College of Pharmacists.

Such medical services provided under contract are paid by health insurance homes, which provide administration and management of health insurance system and the National Fund of Health Insurance (FNUASS).

Socio-medical services are addressed to partly or wholly dependent persons in carrying the current activities of life, to isolated people and those with severe physical, psychological, mental or sensory disorders. This is a complex of activities provided in a integrated medico-social system to maintain autonomy and prevention of worsening the situation of dependence and generally provided outside the health insurance system.

Ministry of Labour, Family and Social Welfare coordinates and controls medico-social assistance at central level.

Organization of medico-social services at local level is however the responsibility of local authorities (county councils, local councils - municipal, town and village).

Department of the local authorities with responsibilities in medico-social services, is the public social assistance service, where works a multidisciplinary team consisting
of social workers, community nurses and health mediators, providing integrated care in the community.

Medico-social services are provided at home, in social assistance units and health care and social units, depending on the results of the evaluations made in the social investigation. For elderly needs assessments are based on a national scale, including criteria for admission to degree of dependence [6].

Social assistance institutions as specialized public or private providers, mainly providing accommodation, social and medical care, assistance, protection, recovery activities, rehabilitation and social reintegration. Specialized units for the elderly, under the Classification of social institutions, are: shelters for the elderly, protected dwellings, day care centers providing care and support at home.

Of these, only shelters for the elderly and protected dwellings provide services in residual institutional system, providing accommodation for an indefinite period. Organization of these institutions differs, depending on the situation of the beneficiaries, offered services and their duration.

Medico-social service delivery at home or in social assistance institutions is carried out by multidisciplinary teams.

The health care and social units, occurred through the reorganization of health facilities with beds, are subordinated to local authorities and offer health and social services to people with chronic conditions requiring permanent or temporary supervision, assistance, care, treatment and which, for various reasons can not ensure their social needs, develop their own skills and competencies for social integration.

Access to these units is the opinion of management, upon the recommendation of health units with beds or at the request of ones persons, in accordance with a medical and social assessment scale of a person approved by the Ministry of Health and Ministry of Labour.

Financing health services and the medico-social is different. While medical services are paid mostly in FNUASS, the medico-social have local budgets as main funding source.

The health care and social units are financed from own revenues and subsidies from local budgets, according to subordination. The own revenues are from individual contributions of the beneficiaries or their legal advocates, who are determined by the local authorities and from donations, sponsorships and other sources [7]. Payments for medical personnel, medicines and sanitary materials in these units are provided by transfers from the MoH budget to local budgets [5].

2. Need assessment in relation to the demographic and health indicators

A number of demographic and health indicators analyzed for health care needs assessment reveals disturbing aspects of the country's demographic situation, health of population and consumption of services.

Population aging is one of the factors recognized to cause increasing of the needs and implicit increases demand for health services.

In terms of demographic aspects, structure by age in 2009 highlights a population already aged, with a rate of 19.9% persons 60 and over in population, its evolution from 2000 to 2009, showing an increase in percentage of elderly especially detrimental to young people (0-19 years). This trend will continue in the future, according to projections made by the Demographic Research Centre "Vladimir Trebici".

There is also an increase in life expectancy and life expectancy at age 65, with a difference between sex and area of residence, women and the urban environment being in advantage [8]. The elderly dependency ratio has increased over the years reaching 21.3% in 2008, value at national level.

Health of the population suggests specific needs for different groups, while various indicators of accessing to health care confirm the increasing of some types of medical services.

Thus, although general mortality over the past decade showed higher values than the birth rate, leading to a negative natural increase of population, mortality rates by age groups are declining in all age groups, but especially the older groups. Mortality among the elderly population is higher in rural compared to urban areas [9].

The main cause of death was cardiovascular diseases and tumors between the years 2004 – 2009. Cardiovascular disease mortality was higher along the whole period in women than in men, while the tumors had higher values for men. [8].

Published data for 2006 and 2007 showed that in people 65 and over, the main causes of death were the same as in the general population, but mortality from these causes was much higher than in the general population (6 times for cardiovascular disease and 4 times greater for tumors) [10].

General morbidity (new cases of disease) in the population had an increasing trend over the past 10 years.

Evolution of new cases of diseases on the classes of disease shows that between 2000 and 2009 increased new cases by circulatory system diseases, osteo-muscular system disease, nervous system and sense organs diseases and the endocrine and nutrition diseases (figure No. 1) Decreases were observed for new cases of disease by respiratory diseases and infectious and parasitic diseases.

In 2007, 44.9% of all new cases of cardiovascular disease, 37, 3% of those with neurological disorders and 36, 4% of all new cases of tumors were persons 65 years and over. Older women had higher percentages for cardiovascular diseases, diseases of the nervous system, musculoskeletal system diseases, while elderly men for diseases of circulatory system, tumors and neurological disorders. [10].
Indicators on access to health services reveal an overall increase in admissions to hospital in 2009, compared to 2000. There have been increases in this period for certain classes of diseases like cardiovascular diseases, tumors, endocrine and nutritional and metabolic diseases, diseases of the osteo-articular system, and decreases in infectious and parasitic diseases, respiratory diseases, diseases of digestive organs and genito-urinary tract [9].

In 2009 and 2010, according to data published by the National School of Public Health, Management and Professional Development in the Health, the highest rate of all cases admitted in hospital had, in descending order, admissions for cardiovascular diseases, respiratory and musculoskeletal diseases.

Overall, cases discharged and paid by health insurance home decreased in 2009 compared to 2006; while cases discharged and paid by continued hospitalization had a decreasing trend, cases discharged and paid by day hospitalization increased.

Structure of discharged and paid cases, settled on acute and chronic wards, in the same period, showing a predominance of cases in acute wards, compared to chronic wards [11].

About 20% of cases admitted to acute wards from hospitals paid based on DRG in 2005 and 2006 were people aged 65 and over, almost 45% of them came from rural areas and about 56% were women. In the two years almost half of hospital admissions were made in an emergency and only about 20% of them was made in the submission of the family doctor or specialist physician [12].

In terms of consultations and treatments for various medical specialties they had a variation oscillating between 2000 and 2009. Specialties that had significant decreases, relatively constant from year to year were surgery, tuberculosis, venereal and dermatology, ophthalmology, dentistry and otolaryngology. Increases were registered for oncology and medicine of physical culture. There were variations between districts in relation to the number of consultations and number of the treatments / capita [9].

Reported to the same period, the number of consultations in dispensaries was higher than in outpatient facilities and hospitals taken together. However, according to data published by the National Health Insurance, the number of outpatient consultations (family physicians and medical specialists) increased in 2009 compared to 2005, being more numerous at family doctor, than to medical specialists. Also, the number of laboratory and medical imaging tests reimbursed by insurance funds has increased.

Subjective assessments made by the National Institute of Statistics, in "Living conditions of population in Romania", in 2006 and 2007, revealed that the elderly (65 and over) had significant weight among cardiologists patients (45 , 6%), urologists (32.3%), ophthalmologists (30.7%) and neurologists patients (28.5%). People over the age of 50 years made regular checks more frequently. Among elderly people 65-74 years, who needed to consult a physician or a dentist and did not have that, over two thirds of them said they can not afford.

Home visits made by nurses decreased by almost 15 times in 2009 compared to 1989, with a progressive decrease from one year to another throughout the period [9].

The number of beneficiaries of home health services reimbursed by insurance funds in mid-2009 was quite low compared with those of other services. This can have two presumed causes: either health legislation does not encourage providers of such services to contract with health insurance funds or reimbursed amounts are considered insufficient to cover the costs of care provided.

There are currently insufficient data available on the number, type and cost of medical care by age, but it is certain that these are higher in older age categories, as the elderly healthcare involving expensive technologies, long hospitalization, treatment and monitoring more expensive.

According to research conducted by the National Council of Senior Citizens in 2009, in Romania there are high demands coming from the elderly to be cared for in institutions for social assistance, because of their insufficient income to cover daily living costs (medicines, food, home maintenance costs, heat, electricity, etc..) and lack of home care staff [13].

Data published by the Ministry of Labour for the same year showed a large number of requests waiting for homes for older people (2726), both for homes belonging to local authorities and for NGOs homes. Average monthly
number of beneficiaries of care given in these institutions was in the same year, 7379, in the entire country. Adding this number to number of waiting requests, you can find the approximate number of older people with needs expressed of services provided in such units (over 10,000). 81% of average monthly number of beneficiaries of home care financed by budgets of NGOs (13 333) were elderly, the rest being children, disabled and other categories. [14].

The main problems facing social security institutions, which assist older people in residential regime (homes for the elderly, nursing homes and permanent care, recovery and rehabilitation centers), are: overcrowding (many people in room), insufficient funds, lack of trained personnel, poor living rooms and deficient equipment with medical devices [13].

Almost 80% of beneficiaries of services provided in medical-social units evaluated by the National Council for the Elderly are people aged over 60 years, most of them being of 70-74 years, requiring long-term care. The ratio between men and women show small differences in favor of females [15].

3. The current provision of healthcare

Accessibility to medical care is determined by the correlation between supply and demand for services or between the actual availability of care facilities compared with the demand based on real need for health services

The development and spread in the area of health infrastructure, medical staffing, the conditions of supply of health services and distribution and allocation of financial resources are factors that are highlighted and in the same time influenced offer of the healthcare system.

In our country, the hospitals distribution is unequal between counties, the state being the owner of majority of hospitals, outpatient units and family medicine cabinets. Dental offices, medical specialized offices and pharmacies are private in the highest proportion [8]. Most public health facilities with beds were transferred in 2010 from the Ministry of Health to local authorities, together with other competences, medical community assistance and medical assistance in schools.

In 2009, the number of hospitals per 100,000 inhabitants was, according to World Health Organization (WHO), lower than the European Union (EU) - 2.48, compared to 2.67, while the number of beds/spital/100000 population was higher.

In order to reduce hospital activity, the government decided, for the period 2011-2013, reducing the number of beds for which health insurance funds may contract hospital services with public and private hospitals in Romania [16].

Medical staffing in the health care system is poor: although the number of medical staff increased slightly from 2002 to 2009 the number of medical personnel to 1,000 inhabitants was lower than the EU average. In a situation of CNAS on the number of specialized doctors in contract with insurance funds, physicians with specialty of Geriatrics and Gerontology represented two years ago only 0.41% of total. Also, of the 40 specialties under contract with insurance funds for outpatient services, geriatrics and gerontology ranked 26 in the hierarchy made on the number of doctors providing services under contract with insurance home, by specialty [17].

Because health care is provided mostly in the health insurance system, it is important to highlight the situation of service delivery in this system.

In an evaluation study conducted by the National Health Insurance in 2009, on the supply of existing services, is showed that there were 98 localities, in the mid of the year, without medical services in outpatient, all of them located in rural areas [18].

In the same year, there is a difference in the coverage with primary health care services between the two areas of residence (poorer in the rural areas), which remained, in fact, throughout the period 2004-2009 and is explained by fewer family physicians in contract with health insurance home in rural areas compared to urban. In the same period, the evolution of the share of people registered to the family doctor reveals lower rates of insured persons registered in the rural compared to urban.

Number of contracts with providers of hospital services increased from 457 in 2004 to 515 in 2010, as following to reorganization of public hospitals and entering private health units with beds into contract with health insurance funds.

Situation related to providing specialized outpatient services shows an important increase in the number of specialized physicians from clinical outpatient units in contract with insurance funds, beginning with 2008 (Figure no. 2).

Number of contracts with providers of clinical, laboratory and dental services has not varied significantly in the last 7 years. There is however a decrease in the number of dental services reimbursed of home insurance between 2006 – 2010 period, for all three packages: basic, optional and minimal [11].

Data on contracting of health care services at home with home insurance reveals subcontracting of these types of services, compared with other types of assistance (66 providers in the contract in 2004; 295 in 2009, as in 2010 it will be reduced to 267). Number of services provided had an increasing trend until 2008, and then it declined gradually in 2009 and 2010. Its decline in 2010 could be the consequence of changing in the method of payment of providers, from fee for service to fee per case.

Nurses who provide home care medical services totaled only 1095 people in mid-2009, throughout the country. Their distribution in each county (Figure No. 3).
highlights three counties without such person, respectively Salaj, Ialomita, Giurgiu and only two counties where this number exceeded 100 (Harghita, Iasi).

Their work is carried out mainly in urban areas, being only two counties where they are present in rural areas, respectively Iasi and Timis, but very few [18]. Home health care segment was developed in 2010 by introducing palliative care services in the basic package, which until then were contracted with units with beds only.

For providing emergency medical services and medical transport number of contracts with providers of such services increased from 48 in 2006 to 70 in 2010. Number of kilometers realized in this period was always superior to those contracted, and the number of requests was higher, compared to the original contracted.

Supply evaluation of medico-social services revealed that in 2009 were recorded in the Ministry of Labour, Family and Social Protection 149 homes for the elderly, who belonged to the local councils [57], county councils [41] or nongovernmental organizations [51]. Their total capacity was 8267 seats, institutions owned by the non-governmental organizations having a number almost three times lower beds, overall, than those under the authority of local councils.

Their distribution on the 8 regions of the country is uneven, meaning that most homes subordinated to local councils are in the South East [15], while those set up by NGOs and those owned by councils county belongs to the Center region (18 and 8). [14].

Number of beds in nursing and elderly homes in Romania reported by WHO in 2009 was 94.45 / 100,000 population, lower than 2004 (102.11).

To respond to waiting requests registered to local authorities and to improve elderly access to care and assistance in the institutionalized regime, government approved the Program of national interest "Development of homes for the elderly". It takes place between 1 April 2011 - December 31, 2013, and is addressed to local authorities who decide to setting up homes for the elderly through the reorganization of health facilities with beds in their own network, which is dissolved. Thus, it could be set a number of 67 homes for the elderly, where it was estimated that between 1500- 4200 elderly will receive assistance. [19].

Until now, according to data transmitted by the Ministry of Labour, only for 22 of the 67 health units proposed for reorganization in homes for the elderly, it was requested funding by the local authorities, owners of these units.

Day care centers for the elderly and protected dwellings were very few, 78, respectively 8, total capacity of the first mentioned being of 9416 seats, and capacity of the protected dwellings was 180.

Caregivers at home recorded at the end of 2009 were 1719 authorized natural persons and 9 legal entities. Of 2003 when they were established, medico-social units remained in the state ownership, increasing progressively from 18 to 68 in 2009. Most of these were located in rural or small localities from urban. Their distribution by region in 2007 shows a greater number of such units in the

Figure 2. Contracts and situation of physicians in contract with health insurance home, for some types of medical assistance in specialised outpatient

Data source: National Health Insurance House, 2010 Activity Report

Figure 3. Distribution of health care providers at home (nurses) at national level, 30.06.2009

Data source: National Health Insurance House, Supply of medical services,
North-East [16] and South-West Oltenia (12). In 2009, the total number of beds at national level in these units was of 2818, increasing with 670 beds compared to 2004 [8].

Most of medico-social units maintain the aspect of the former health units with beds, having a reduced number of beds. Facilities of living rooms are limited and medical equipment is not suitable to profile of the assisted, so that these can not meet their social and health needs.

It also found lack of geriatric physicians, although in these institutions are assisted elderly, primarily, who need specialized medical care [15].

Although according to the legislation, medico-social units have to hospitalize people with medico-social problems for a limited time period, analysis showed that in one third of cases the period of care was unlimited, and in 21% from these between 4 - 6 months, so these units tend to become permanent centers for long-term care.

The financing of the health services

Supply and demand for health services are influenced by the funding of various types of assistances within health care system, but also are influenced by the population power to pay some services.

Over the years, in Romania, the level of public expenditure on health was reduced, which affected the maintenance of the system, investment in equipment and access to services for people with low income - which includes most of elderly.

Percentage of GDP of public expenditure on health in Romania was among the lowest in the EU countries, ranging in 2000-2008 from a minimum of 3.3% in 2006 to a maximum of 4.1% of GDP in 2003.

Of 1999, since financing the health system is mainly made by social health insurance system, costs of this system have increased from one year to another. At the same time, fund of health insurance territorial homes decreased (currently only 60% of contributions collected in a county are back to the county health insurance home) [5].

In the period 1999-2009, the largest share of CNAS budget was represented by the hospital care costs, followed by those for drugs with and without personal contribution and primary health care (Figure no. 4).

Some of the costs for drugs are funded by "Program for compensating with 90% of the reference price of medicines, for pensioners with incomes from pensions only up to 700 lei/month", which was developed and implemented in 2009, to improve access to medicines of this category of persons [20].

Since 2003, when home care medical services began to be reimbursed, amounts for these were the lowest of those for other types of services, representing in the period 2003-2009, less than 1% of total payments for materials and provision of medical services [11].

In 2009, total spending on homes for the elderly at the national level, sum 156 157305 lei. Only 1.8% of this amount represents grants from the state budget, most of funds providing of the institutions/authorities that have these homes, the beneficiaries contributing to this total only with 18%.

CONCLUSIONS

Despite the reduced availability of public data about the medical and medico-social services and facilities required and accessed by different population groups, which could suggest either a lack of transparency in the system, or lack of actual concern to identify those needs, is found, however, in recent years, an increase in demand for some types of health services (cardiology, oncology, socio-medical care), some of it coming from the elderly.

Providing health services in the health insurance system, the main system through which people access health services, depends on the percentages allocated of FNUASS by type of assistance, and is not in concordance with the real needs of services of the population.

The current provision of medical and medico-social services is affected by the insufficient funding,
insufficient human and material resources, being lower in rural areas, thus leading to inequality in access to services of this type.

While demand for health and social care services is increasing, services and local community structures, and also the non governmental structures for helping persons finding in social and medical need, are in an early stage and manifest timidly in comparison with the current needs.

Funding and coordination of the medical and social services dispersed between many actors create difficulties in providing effective integrated care offered at home or in institutions for vulnerable people such as elderly.

Although recent actions have been initiated to improve medico-social care at home and in institutions for elderly, like decentralization of the community medical assistance and transformation of health care facilities with beds in homes for the elderly, its solve only a very small part of needs in this area.

References

3. VLADESCU C. and others, Public Health and Health Management, University Book Publishing House, 2004
10. MIHART OE, "Socio-economic situation of older people in Romania and EU countries", 2009, www.cnpv - section analysis and studies developed, accessed to 03/01/2011
12. National School of Public Health and Management in the Health Sector, Indicators of services using, www.drg.ro, accessed to 15/06/2011