

STATISTICAL OVERVIEW OF THE HEALTH CARE AND PROTECTION SYSTEM

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Abstract: *The health care network and the health protection system play a fundamental role in ensuring the population's access to quality medical services, in preventing illnesses, and in contributing to the increase of life expectancy. The analysis of the health care network's activity "in figures" involves the study of relevant statistical indicators, such as the number of health units, medical personnel, the degree of utilization of medical services, as well as public expenditures on health. Through these data, it is possible to highlight the developments, trends, and possible imbalances existing within the health system, while also providing a solid foundation for decision-making at both governmental and local levels. The present paper aims to present, from a statistical and analytical perspective, the activity of Romania's health care network, based on data provided by various official sources.*

Key words: *health care network, medical services, medical offices, access to health services, population health*

INTRODUCTION

The Romanian health and healthcare network includes all institutions, organizations and medical units that aim to protect and improve the health of the population [4,5]. The complex activity of these institutions is oriented towards the prevention of diseases, diagnosis, treatment and recovery of patients [1,2]. This network operates in close connection with national health policies and programs implemented by the Ministry of Health [7]. In recent years, attention has focused on the modernization of medical infrastructure, the digitalization of the healthcare system, and the training of human resources, in order to ensure modern and accessible medical services. At the same time, relations between the public and private health sectors have been strengthened, which has led to a diversification of the service offer and a better coverage of medical needs [9,10].

The analysis of the activity of the healthcare network, expressed through statistical data, provides a clear picture of how the Romanian healthcare system functions and develops. Thus, the main directions of evolution of the system can be observed: the expansion of the networks of outpatient clinics and medical offices, the development of diagnostic and treatment centers, the increase in the number of pharmaceutical units, laboratories etc [8,9]. The collaboration between medical institutions, public authorities and non-governmental organizations has as its ultimate goal the improvement of the general health status of the population, the increase of the quality of life.

MATERIALS AND METHODS

Statistical analysis is an essential tool for evaluating the performance of the Romanian medical system, highlighting its capacity to adapt to modern requirements and to provide efficient, equitable and accessible medical services to all categories of the population[6]. The data analyzed and interpreted in the paper refer to the structure and dynamics of medical units, the evolution of the number of beds for continuous hospitalization, their distribution by specialties and residence environments, as well as the structure of medical personnel[3]. The data cover the entire healthcare network in Romania (public and private), reflecting the activity of all types of units providing medical services (prevention, diagnosis, treatment and rehabilitation). The information is structured so as to

highlight: the existing situation in the reference years 2021 and 2024, the numerical developments at the level of unit category and specialty, the territorial distribution of units and medical personnel. The source of the data is the newsletters and press releases of the National Institute of Statistics regarding the activity of health and health care units.

RESEARCH RESULTS

The period 2021–2024 was one of transition and recovery for the Romanian healthcare system. In 2021, medical activity was strongly influenced by the effects of the COVID-19 pandemic. The implementation of the National Health Strategy 2023–2030 (GD no. 1004/2023) [11], correlated with the main investment policy of the European Union - Cohesion Policy 2021–2027 - led to a progressive recovery of the national healthcare system by 2024 [8].

Table 1.

Evolution of the number of medical units in Romania

Types of medical units	Total	Urban	Rural	Total	Urban	Rural
	2021			2024		
HOSPITALS	543	488	55	558	500	58
Sanitation units (including units assimilated to hospitals)	160	151	9	183	172	11
TB sanatoriums	2	2	-	2	2	-
preventoria	2	-	2	2	-	2
Spa sanatoriums	11	9	2	11	9	2
Medical and social units	66	27	39	66	27	39
Specialized outpatient clinics and hospitals integrated	509	470	39	552	511	41
dispensary	80	78	2	79	76	3
Medical dispensaries	182	177	5	183	178	5
Specialized medical centers (including diagnostic and treatment centers)	725	714	11	110	989	21
Health centers	97	94	3	96	92	4
Independent family medicine practices	10,470	6,333	4,137	10,299	6,194	4,150
Independent general medical practices	761	649	112	753	620	133
School and student medical offices	2082	2060	22	2,318	2,284	34
Dental offices (independent)	16,177	13,834	2,343	17,450	14,946	2,504
School and student dental offices	500	499	1	528	527	1
Independent specialist medical offices	13,552	12,906	646	15,199	14,328	871
Dialysis centers and dialysis center work points	93	91	2	99	96	3
Civil medical societies	296	199	97	329	210	119
Civil medical dental societies	375	310	65	479	388	91
Specialized medical civil societies	590	556	34	817	755	62
Pharmacies, pharmacy branches and drugstores	9925	6136	3789	9991	6066	3925
Pharmaceutical warehouses	252	230	22	193	182	11
Medical laboratories and dental laboratories	6706	6404	302	7246	6915	331

Source: own construction based on -INSSE- Activity of sanitary and health care units Newsletters, Press releases, temponline database [12-16]

In 2021, the development of the network of health and healthcare units (both in the public and private sectors) was strongly influenced by the measures applied in the health system to ensure the provision of services for the prevention and treatment of COVID-19 - strict scheduling of patients and prioritization according to emergencies, issuing prescriptions for the treatment of chronic diseases in electronic format, sending them by e-mail, testing and triaging patients upon access to hospitals, etc. Thus, medical services provided to outpatient patients decreased (consultations, paraclinical services, laboratory

services, etc.), the number of hospitalized patients and the average length of hospitalization decreased, the structure of hospital beds changed. There was an increase in the number of health personnel and doctors, etc.

In 2024, some of the strategic objectives in healthcare were related to: improving infrastructure and investments in health, expanding screening programs for major public health diseases (oncological, chronic liver diseases, tuberculosis, early detection of diabetes and hypertension, etc.).

During the period under review, the total number of medical facilities increased significantly, especially in urban areas, due to the expansion of private networks and the development of outpatient services. Hospitals recorded a slight increase, from 543 to 558, while outpatient clinics and specialized medical centers experienced a sharp development. The increase in the number of independent medical and dental practices indicates a diversification of medical services and an increased orientation towards preventive medicine and individual consultations.

In rural areas, the expansion of the healthcare network has occurred at a slower pace. Although the number of family medicine practices and rural medical centers has remained relatively constant, major disparities persist in terms of access to specialized services.

Table 2.

**Number of beds for continuous hospitalization in hospitals
(by specialties and residency environments)**

Medical specialties	Total	Urban	Rural	Total	Urban	Rural
	2021			2024		
TOTAL	135085	124864	10221	136682	126297	10385
Psychiatry	16243	10858	5385	16458	10967	5491
Surgery	14,077	13987	90	14413	14292	121
Interior	12,039	11743	296	11300	10976	324
Medical recovery + balneology	8,498	7588	910	9368	8163	1205
Obstetrics-gynecology	8496	8459	37	8459	8393	66
Pneumology	8394	6355	2039	7655	5814	1841
Pediatrics	7350	7317	33	7316	7284	32
Infectious diseases	6030	5882	148	6154	6087	67
Cardiology	5878	5816	62	5645	5597	48
you	5762	5604	158	5524	5486	38
Neurology	5345	5300	45	5411	5365	46
Neonatology	4608	4595	13	4612	4584	28
Orthopedics-traumatology	4315	4299	16	4582	4552	30
oncologists	4200	4189	11	4413	4402	11
Other specialties	23850	22872	978	25372	24335	1037

Source: own construction based on -INSSE- Activity of sanitary and health care units – Newsletters, Press releases, tempoonline database [12-16]

In 2021, Romania had 135,085 beds for continuous hospitalization, of which only 7.6% were in rural areas. The most numerous specialties were psychiatry, surgery and internal medicine, which concentrated over 30% of the total beds.

By 2024, the total number of beds had increased slightly, reaching 136,682, but their distribution remained unbalanced. The urban environment still holds over 90% of the total inpatient capacity. Beds for medical recovery and balneology have increased, reflecting the interest in rehabilitation and active aging services. Of the total of 126,297 beds for continuous hospitalization that operated in urban hospitals, the largest number was allocated to the specialties of surgery (14,292 beds), internal medicine (10,976 beds) and psychiatry (10,967 beds).

In rural areas, 10,385 hospital beds for continuous hospitalization operated, representing 7.6% of the total. Of these, 5,491 beds were psychiatric beds, 17.7% (1,841 beds) for pulmonology, the remaining specialties representing about a third of the total number of beds.

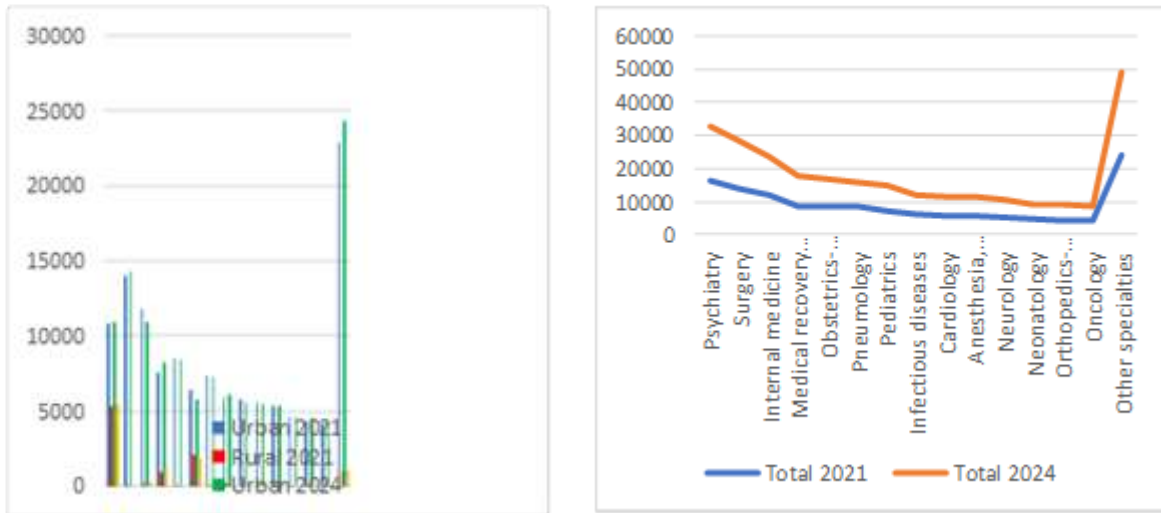


Figure 1. Number of beds for continuous hospitalization in hospitals

Source: own construction based on Table 2 data

Other specialties are completely lacking in rural areas - ophthalmology, nephrology, hematology, occupational diseases, etc. This highlights the need for a coherent policy of redistribution of medical infrastructure and human resources to reduce territorial gaps. In 2024, there were, on average, 7.2 beds for continuous hospitalization per 1,000 inhabitants.

Healthcare personnel registered a steady increase between 2021 and 2024, both in number and level of training. The increase in the number of family doctors and nurses indicated the authorities' concern to support the primary health care network, but the urban-rural gap persists, accentuated by professional migration and insufficient infrastructure in rural areas.

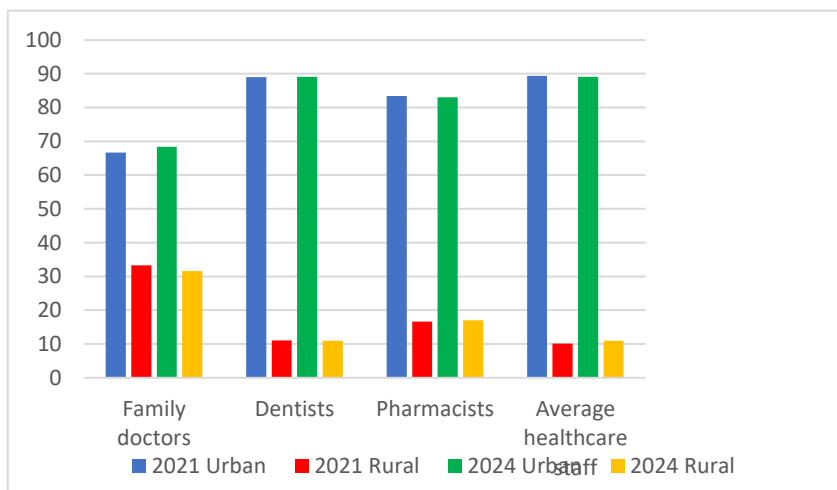


Figure 2 Structure of the main categories of medical personnel - by residency environment

Source: own construction based on database [12-16]

In 2021, there were 36 doctors (on average), 10 dentists, 11 pharmacists and 81 people with medium health training per 10,000 inhabitants. At the end of 2024, 382,066 healthcare professionals were working in the healthcare system. Of these, 38.2% were healthcare professionals with higher education (doctors, dentists, pharmacists, physiotherapists, nurses, biologists, chemists), 41.5% were healthcare professionals with medium health training and 20.3% were auxiliary healthcare personnel. At the same time, the number of resident doctors in 2024 was 22,647.

The distribution by area shows a massive concentration in urban areas – almost 90% of doctors, dentists and pharmacists work in cities, while rural areas remain understaffed, with only 10–11% of the total staff.

CONCLUSIONS

- ✓ The indicators are presented according to national and international statistical standards for the health sector,
- ✓ The national healthcare network expanded between 2021–2024, with a focus on urban facilities,
- ✓ The total number of beds and medical units shows a slight increase, but the geographical distribution remains unbalanced,
- ✓ The rural environment continues to be disadvantaged in terms of infrastructure and medical human resources,
- ✓ Post-pandemic strategies and European funding programs have begun to produce visible effects, but the balancing results will be felt in the medium and long term,
- ✓ For the next period, the following are promoted and supported: modernization of the healthcare infrastructure, digitalization of the healthcare system, interconnection of all healthcare IT systems, improvement of medical procedures, training of medical personnel.

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