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PANDEMIC HEALTH SYSTEM VULNERABILITIES

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Abstract: The public authority responsible for health insurance, through the elaboration of normative acts at the beginning of the pandemic, considered the establishment of measures to support vulnerable people who are in isolation at home, as a result of measures to limit the spread of COVID-19, in view of the activity of community health care.

Romania, compared to other states, tried to organize and protect the country's population in the best possible way during the pandemic period -COVID-19, this having a major impact on society. The central public authority together with the public authority responsible for health insurance, as well as the National Committee for Special Emergency Situations ensured the monitoring of the situation of coronavirus infected patients and the impact on the population. Also, as a result of monitoring the situation, measures were taken regarding the state of emergency and at the same time measures were taken to organize and coordinate the health system throughout the country.

With the outbreak of the epidemic, a number of dysfunctions in the ability to deal with such a medical tragedy have emerged at the level of all states. , the fragile balance of the mentality of the population and with the major impact of this tragedy.

In Romania, from the beginning of the pandemic, it was noticed that the medical system was outdated, but we were not the only country facing this situation, this happening in many other countries in the Western world, but in our country the situation seemed unusual.

In this pandemic situation, experts, medical specialists failed to inform the population about this virus and its consequences, in terms of guiding and guiding the population to vaccination and immunization, as well as establishing restrictions and issuing clear and concise regulations.

Keywords: public health, public authority, health system, community care, challenge, Covid-19 implementation, health services, healthcare, control, pandemic, coronavirus.

INTRODUCTION

Romania, at the beginning of the pandemic, received this challenge with skepticism, but the authorities mobilized and instituted a state of emergency, followed by a state of alert until March 2022. The central public authorities issued normative acts in order to prepare the hospitals and took measures to prevent and control coronavirus. The health units, both subordinated to the Ministry of Health and those of local subordination, have taken measures to prevent and purchase protective equipment and medical equipment such as PCR in order to detect the virus, and at the same time some health units have been equipped with medical equipment. CT type for the detection and evaluation of infected persons.

The Ministry of Health, as Operator of the Program "Challenges in public health at European level" carried out through the Financial Mechanism European Economic Area 2014-2021 the Program "Challenges in public health at European level", a program through which it aims to contribute to objectives of the EEA Grants 2014-2021 through a variety of measures such as: strengthening the prevention and reduction of health inequalities in various fields, by preventing and treating infectious diseases, improving the health of vulnerable groups (children, the elderly, Roma) through services primary and community health care, access to preventive health services in the fields of obstetrics-gynecology, nutrition, pediatric oncology, mental health for children, screening for cervical cancer, development of medical records and diseases and measures to combat

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hospital infections and reduced antibiotic use.

Within this project, the Ministry of Health continued to finance and implement the proposed projects, as well as to carry out project calls, respectively to strengthen the national network of primary health care providers to improve the health of the population, children and adults (including vulnerable population).

The pandemic played an important role in the health units, as the medical staff provided medical care to all insured or uninsured patients through emergency services and continuous hospitalization, as well as vulnerable groups by providing primary and community health care services with priority. in disadvantaged areas.

Of particular importance in financial protection was the financing of the Public Health Challenges Program at European level, an issue related to the achievement of health equity during the pandemic, as well as the measures taken by the public health authority to meet the demand for health care. treatment of the entire population affected by the pandemic.

METHODS AND RESEARCH

The public authority responsible for health insurance through the European Public Health Challenges Program in September 2020 launched the open call for project proposals on "Improving access to health services especially for vulnerable groups, including Roma", and in December 2020 The Small Grant Scheme on "Providing Outreach Health Services to Improve Prevention for the Vulnerable Population in Isolated Areas" has been launched.

Within the planned projects, the general objective was to carry out the projects of the regional emergency hospitals (SRU), a project that provided for the improvement of the quality and efficiency of medical services for patients requiring acute emergency interventions, secondary and tertiary care or technology and high level expertise for complex pathologies. .

The Ministry of Health in this project aims to reform the network of medical services in the 3 regions, which aims to make the new regional emergency hospitals become tertiary care centers for the hospital network in the region, with full takeover of services provided of the current county emergency clinical hospitals and parts of other components of the emergency network.

Also, by building and operationalizing the regional emergency hospitals, the aim is to relieve the county emergency hospitals, by:

- Providing high quality, multidisciplinary integrated services for patients with acute, urgent and complex pathology, at secondary and tertiary level, comparable to the best contemporary European models;
- Providing services in continuous hospitalization, development of day medical services and those in the specialized outpatient clinic in optimal conditions;
- Improving the access of the population, especially for vulnerable groups of patients, to high quality secondary and tertiary hospital services;
- Reducing the number of preventable deaths in the respective regions.

In the research carried out during the pandemic, it was observed that, at the level of the sanitary units, there is an old infrastructure, with obsolete circuits, with overloaded electrical installations. This aspect was also taken into account in the situation when the networks of the sanitary units were overloaded, they gave in and caught fire.

An analysis at the level of our country showed that we do not have doctors on ATI, infectious disease doctors, pulmonologists. There are also counties where there are only three or four anesthetists. In the context of those presented, we note that human resources in the health system is a major problem, as well as an imbalance in the distribution of health personnel in the country.

In order to balance the health system in terms of distribution of doctors and retention of health personnel, the Ministry of Health and the National Health Insurance House, being initiators of regulations can come with fiscal facilities, but also local communities must do something to attract family doctors, in order to approach this situation in a unified way.

From the data obtained from the National Institute of Statistics, it results that the number of specialists in our country in 2020 is 65,000 specialists, increasing by 4% compared to 2019. Although the number of specialists has increased, still in the health system we are facing a very large shortage of doctors, especially in the health units in the small towns, who are choosing to work in the university centers, due to the more developed health infrastructure and working conditions much more adapted to European standards.

During the pandemic, an important role was played by infection doctors, this aspect proved to be the most vital for the treatment of patients with COVID-19, from the analyzed data it is noted that only 1% of all specialists are infection doctors, there are also counties in the upper, south-west where less than 10 infection doctors work [2].

In conclusion, the distribution of doctors in the health system is a major dysfunction, although facilities have been provided for both doctors working in disadvantaged areas and for family members, as well as salary increases granted to the health system [9] (Fig. 1).

Analyzing the situation of residents in the period 2014-2021, it can be seen that the number of students for residents was 12,169 places in residency, related to university centers in Bucharest, followed by university centers in Iasi, Cluj-Napoca and Timisoara with figures of 6197 , 5598 and 4987 places for residency, respectively.

Comparing the number of doctors in 1990 with the number of doctors in the period 2013-2020, they had an upward trend, but in 2020 the doctors registered a high number both compared to 1990 and the period 2013-2020, according to statistics [15] (Table 1).

From the analysis of the data in the table above, it results that the number of doctors had an upward trend, the peak being in 2020, the number of doctors being 65,740, which we can say that their number increased compared to 1990 by 63%.

From the population's point of view, in 1990 a doctor had 555 people, but in 2020 a doctor has 337 people.

Although the Central Public Authority responsible for health insurance through the European Public Health Challenges Program has provided for medical equipment, hospitals are short of medical equipment, medical supplies, and sanitary conditions have not improved.

In these conditions, hospitals in small towns do not have attractive conditions for young doctors, preferring university hospitals, university centers or emigrating from the country, where working conditions are much more favorable both in terms of health facilities and salaries. Although, facilities have been granted to specialist doctors and increases have been granted to the salaries of doctors tending to large cities in the urban area to carry out their activity, respectively about 91%.

To argue the above, we note that in countries such as France and Germany have left over 8,700 Romanian doctors, in Hungary are over 70% of foreign specialists, this information is taken from data provided by the international organization OECD, these increases do not they reduced the decrease of the exodus of doctors, preferring them to practice abroad, which indicates that the problem of specialists in disadvantaged areas has not been solved.

Given the emigration of doctors abroad, during the pandemic period, respectively in the period 2020-2021, life expectancy has decreased significantly due to COVID-19, which is well below the EU average, but life

Table 1. Source: National Institute of Statistics.

Year	1990	2013	2014	2015	2016	2017	2018	2019	2020
No physicians	41.813	54.086	54.929	56.110	57.304	58.583	60.585	63.303	65.740
Population	23.206.215	22.390.978	22.346.178	22.312.887	22.260.798	22.230.843	19.476.713	19.375.835	22.191.818
Road sing population/ nophysicians	**555**	**414**	**407**	**398**	**388**	**379**	**322**	**308**	**337**

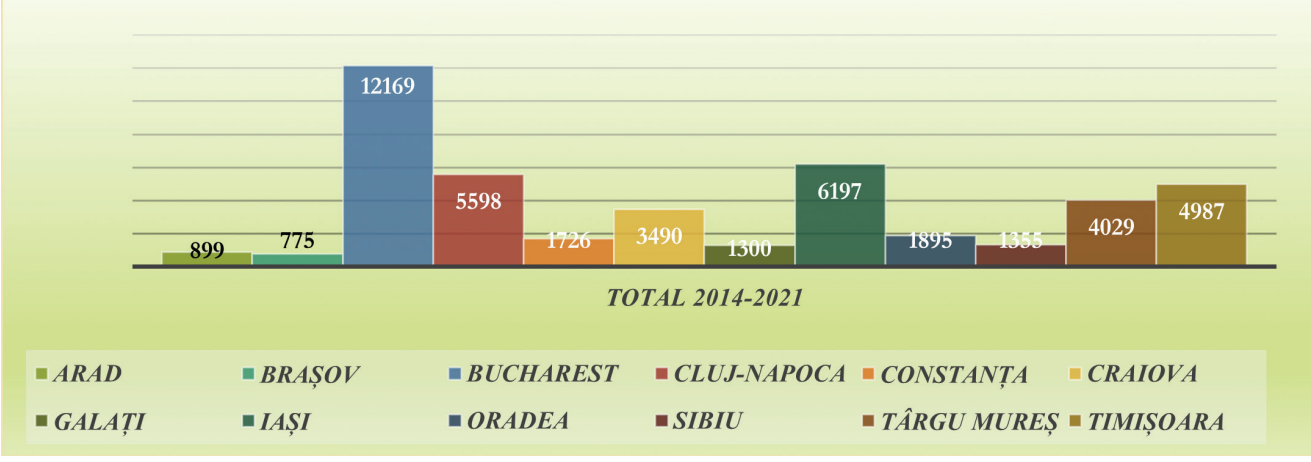


Figure 1. Enrolment figure for residents 2014-2021.
Source: Ministry of Health Human Resources Center.

expectancy at birth in our country has increased more than four years in the period 2000-2019, for example from 71 to 75, but we are among the lowest in the EU [5].

An essential element that contributed to the reduction of life expectancy in Romania was the pandemic which led to a substantial decrease in life expectancy in many countries, in some it decreased by 1.4 years, reaching 74.2 years. Compared to the EU-wide decline in 2020, it was 0.7 years, but the most significant is that women live eight years longer than men, which is the biggest gap at EU level [4].

In Romania, at the beginning of the pandemic, the crisis management was centralized, respectively all health units were subordinated to the Ministry of Health, in the sense that the central administration supervised the pandemic, but after a while it was transferred to local authorities, through which decision makers at county level they had the competence to implement local measures. All these measures were imposed by the Prime Minister, who set up special crisis management structures, as well as the National Committee for Special Emergency Situations, which set up a technical and scientific support group and initiated an emergency action plan. to combat the COVID-19 pandemic. Given the situation during the pandemic, decentralization measures were taken and the responsibility for implementing the measures was transferred to the regional and county authorities [7].

As we know, health insurance contributions are mandatory, which ensures the financing of the health system, and from 2019, the contributions have passed from the employer to the employee. Also, some vulnerable sections of the population are exempted from paying direct contributions, namely the unemployed, pensioners and people receiving social benefits. In order to benefit from medical services for vulnerable people, their contributions are paid from the state budget to the Single National Health Insurance Fund, in order to cover them. These categories also include specific population groups, for example pregnant women, people with disabilities and patients with chronic diseases, as well as children and students under the age of 26, these categories are funded by contributions of the working age population to the Fund. single national health insurance scheme [10].

Studies show that the social health insurance system is compulsory, with about 11% of the population remaining uninsured, especially in rural areas. Also, a major impact on the health system is the uninsured people who are entitled to a minimum benefit package that covers life-threatening emergencies, infectious diseases and care during pregnancy.

In conclusion, the health system is dependent on the contributions paid by employees, but compared to the relatively small number of the active population it results in a chronic underfunding of the health system.

Studies show that in 2015-2019, health spending increased by an average of 10.3% per year, representing the largest increase in EU countries. In 2019, Romania spent less than half of the average per capita in EU countries, respectively 1,130 Euro compared to 3,523 Euro. From the perspective of allocated health expenditures from GDP, Romania spent 5.7% on health, which is the second lowest level in EU countries [3] .

In 2019, the share of public spending on health is about 80% higher than the EU average, and direct payments represent 18.9% and are above the EU average of 15.4%.

Also, from the budget allocated for 2020, the Public Authority responsible for health insurance has allocated funds for population testing, for institutionalized quarantined persons, for vulnerable persons, as well as for national programs for the surveillance and control of priority communicable diseases. At the level of DSPs, there was a particularly active activity by taking over all the persons who entered the Romanian territory, respectively testing them, ensuring quarantine and isolation at home, as well as monitoring contacts and also checking PLFs throughout the country and analyzing the evolution of the pandemic situation [3].

Under these conditions, the Ministry of Health has created a centralized electronic system for hospital services, namely the Operational Coordination Center, which performs daily reporting on the occupancy of beds and facilitating the management of resources in health facilities.

Also, during this period, a special module for COVID-19 was created in the National Electronic Vaccination Register, administered by the National Institute of Public Health in order to support the vaccination campaign. By using the Register, data are provided to monitor vaccine stocks, distribution and number of missed doses, number of people vaccinated and other adverse events, and at the same time after the administration of the vaccine, the vaccinated person receives a vaccination certificate.

During the pandemic, there were sums allocated by government decisions to use the training of health facilities in Romania to care for patients infected with coronavirus - COVID19 and to optimize the

development of priority actions necessary for the care and treatment of critically ill patients, in accordance with administration, financing and implementation of priority actions at the level of health units.

According to the centralized expenditure accounts - state budget, for the period 2016-2021, both final budget appropriations and payments made between transfers between general government units for health actions have generally shown an increasing trend [3] (Fig. 2).

In our country, compared to the measures taken during the pandemic, major improvements are needed in terms of prevention and treatment to reduce the mortality rate. Due to the pandemic, in our country, the preventable mortality rate through prevention was the third highest in the EU in 2018, which indicates the need to improve health promotion and disease prevention. At the same time, major deficiencies in the ability of the health care system to provide adequate and timely treatment to the population are demonstrated by high mortality rates from treatable causes [6].

Regarding the improvement of the quality of medical services, the Authority responsible for the accreditation of hospitals and the use of data collected for this process is ANMCS. However, there are still difficulties, as there are no internationally comparable

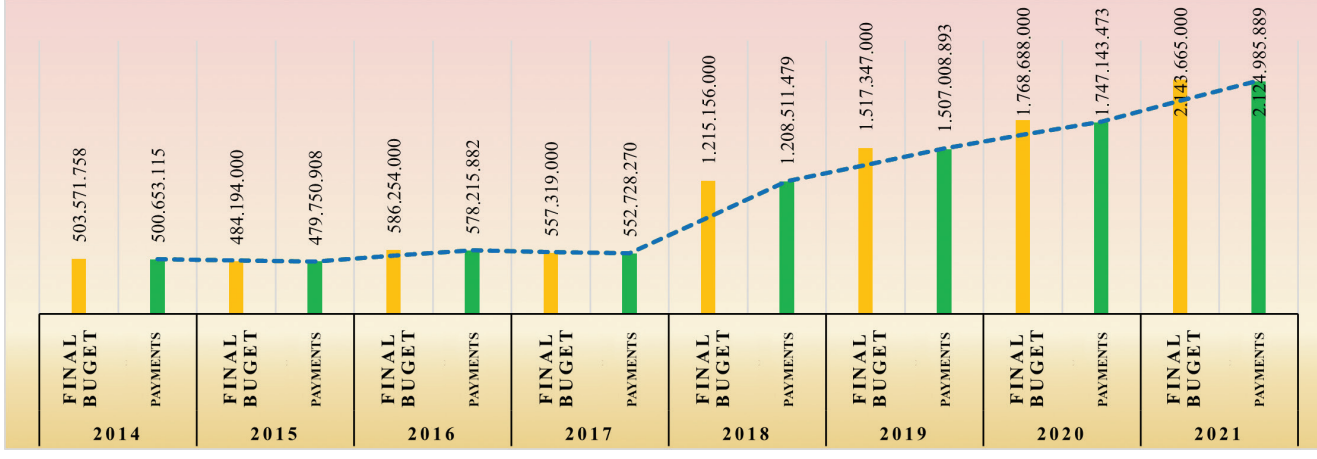
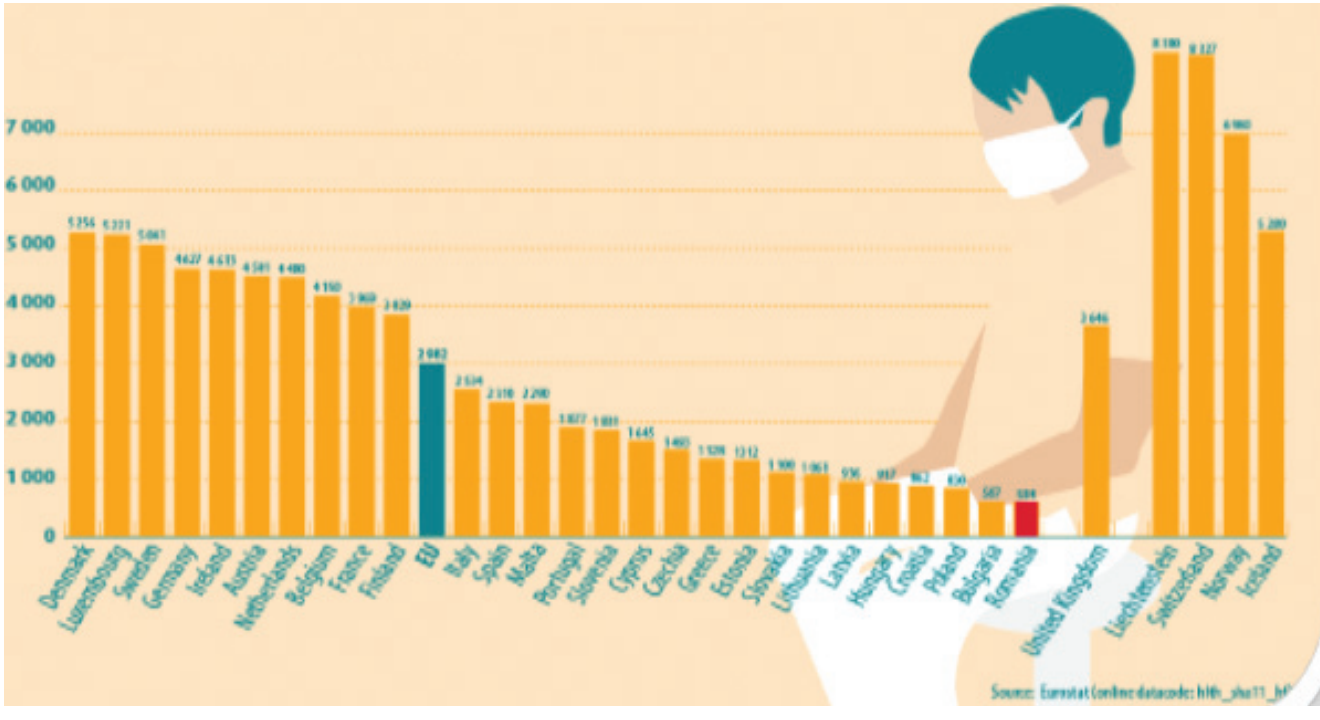


Figure 2. Execution of expenditure - 'Health actions'.
Source: financial statements Ministry of Health.



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data on quality indicators for outpatient and inpatient health services, including on hospitalizations and preventable mortality from discharge in the case of acute treatment.

If we compare the data published by Eurostat, we see that current healthcare expenditure (public and private) shows how it varies according to EU Member States [4] (Fig. 3).

Compared to the previous graph, we specify that, at the level of our country, 584 euros per capita were allocated for health, this being the lowest amount registered among the member states of the European Union, followed by Bulgaria which allocated for the expenses with health 587 euros per capita.

In this context, we specify that Romania allocates for health care expenditures about 5.4 euros of GDP, compared to EU member states, where health care amounts to 9.9% of GDP, data obtained from Eurostat .

In December 2020, at the level of our country, at the proposal of the European Commission, the vaccination of the population was addressed, a campaign that was launched in order to fight the coronavirus and to adopt the recommendations proposed by it.

In conclusion, the pandemic has stimulated the development of electronic information systems, significant investments in modern information and communication technologies of the last decade, there is a high degree of data fragmentation and data collection in the Romanian health system.

New electronic information systems have also been set up to improve the management of much-needed health resources, communication between laboratories, local public health authorities and family doctors and patients.

At the same time, it was noted that the diagnostic tests were processed within 24 hours, the results being automatically sent by e-mail and text message to the person tested and his family doctor, and the DSPs sent isolation decisions to patients with a positive result. Following the test, as well as family doctors. Under these conditions, the system links hospital services to outpatient services for patients with COVID-19.

In conclusion, compared to other countries, per capita spending on prevention is the second lowest share in the EU, but Romania has significantly increased its health spending, but remains one of the EU countries with the lowest spending on health, both per capita and as a percentage of GDP.

An important element to keep in mind is that Romania has a large number of health practitioners, but the emigration of medical staff has contributed to a shortage of health care workers at the national level, and the number of doctors and nurses per capita. per capita is well below EU averages.

A satisfactory situation is that the vaccination campaign against COVID-19 started relatively well in Romania, although there were delays due to supply problems, the number of vaccinated people being increasing with the full dose.

Conflict of interest

The author declares that she has no conflict of interest.

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