

POLICY CHALLENGES AND INTERVENTIONS – COVID-19 AND HEALTH SYSTEMS' VULNERABILITIES

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ABSTRACT: *The European Union is faced as of the beginning of 2020 with a pandemic compared oftentimes with the Spanish Flu by the beginning of the 20th century, and despite technological progress, it seems not much has changed as regards containing the pandemic, and implementing effective measures, especially as regards non-pharmaceutical interventions. At the same time, the ongoing pandemic has revealed several vulnerabilities regarding global health systems, and the ones within the European Union. The pandemic only emphasized several issues already acknowledged, and highlighted new ones. There are two particular core-issues, on short-, medium- and long-term: (a) the financing of the system, as to satisfy both the needs of the providers and of the beneficiaries, and (b) attracting and retaining healthcare workers, the latter especially in countries of central and eastern Europe who tend to migrate for work abroad. Romania is faced with these challenges at several levels, while from demographic perspective it presents features comparable with the ones of developed member-states, and of former member-states of convergence and cohesion.*

KEY WORDS: *healthcare system, healthcare provision, expenditures, healthcare policy, upwards convergence.*

JEL CLASSIFICATION: *H51, I13, I14, I18.*

1. PRE-PANDEMIC STATE-OF-AFFAIRS: BRIEF OVERVIEW OF EU-27 MEMBER-STATES' HEALTH CARE SYSTEMS

The EU-27/28 healthcare systems are faced with increasing difficulties due to combined economic and social considerations, all of them implying increased pressures regarding governance, financing, and provision. Each of these three main chapters has present at various levels of influence stakeholders of the public and private sector, and the beneficiaries of the system.

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The main issues are related to questions about financing the system, as the two clear-cut systems, of the Beveridge and Bismarck type, show signs of exhausting their potential because of the pressures exercised on one hand by demographic considerations which are complex, from low birth-rates to increased life expectancy, and on the other hand by the technological pressure which brought with it better outcomes of research-development and innovation in manufacturing better and improved drugs, at increased speeds, and new high-tech driven health care devices based on implementing high-tech solutions. However, these two developments reveal the issues that dominated the healthcare debate about affordability, and universal access because they imply increasing costs for the system, and higher expenditures for governments and the main healthcare providers.

The issues need therefore to be separated in clear quasi-independent strands of analysis and discussion, respectively:

- a) The specific issues and concerning for the system like attractiveness and incentives for opting for a career in health for young individuals, increasing and preserving healthcare personnel, dealing with shortages which are mainly due to healthcare personnel's migration for work in other countries, financing the needs of the system, and efficient measurement and monitoring of the healthcare system as to ensure performance. The pandemic has shown that policies, actions and measures are necessary for improving the overall performance of the systems, while a perspective shift would be necessary from viewing the healthcare system as a source of expenditures to the one where it is regarded as one of the main contributing factors to economic growth, social stability and overall development.
- b) Issues related to the interaction of the healthcare system with the other major systems: economic, social and cultural, as well as with all main stakeholders from policy decision-makers, to public and private stakeholders involved in providing and delivering healthcare services, and to the wide public.

Both strands, if analyzed, show that specific weaknesses can be found regarding first of all improved governance which results implicitly in improved financing solutions and finally to providing better services to the beneficiaries, while all the time pursuing the initially stated goal adhered to of universal health coverage.

The fact that the health care systems were faced with a period of increased challenges has been emphasized already by the end of the nineties and the beginning of the 2000s, when the World Health Organization had a specific initiative of developing a Healthcare System Performance Assessment framework to assist first policy-decision makers in drafting policies and taking decisions for improving the performance of the respective systems. The consultations during this process pursued to bring about a change of perspective, as many of the countries of the world, including here EU-27/28 countries, had many topics that required further analysis, like clarifying fundamental and intrinsic goals of the health system, attempting to exceed the frequently encountered focus on short-term objectives or on solving issues in point, for instance cost reduction (Murray, et al. 2003).

This 2003 World Health Organization (WHO) initiative drew attention to the fact that healthcare and health systems have various characteristics and particularities, and oftentimes there is a tendency of the governments and various decision makers in

the field to address in a fragmented manner only parts of the system and not its entirety.

These findings are applicable also to the health systems of the EU-27 who are faced with multiple challenges originating in how they deal with ensuring human resources, financing and services in the system, and how the beneficiaries are provided according to their needs, while there are still deficiencies and gaps especially as regards preventative and long-term care.

Aimed first at policy decision-makers, the Health System Assessment (HSA) or Health System Performance Assessment (HSPA) have been used to various degrees according to the main indicators and tools available for assessing especially performance.

The various initiatives undertaken over the years, have employed the HSA/HSPA tools for reasons like providing data necessary for planning regarding the needs and gaps of health systems, recommendations, in particular for reform and identifying alternative policy options, all finally with the stated goal of improving health systems performance.

The four functions identified in assessing the performance of health system (Murray et al. 2000) have all played a role, especially over the period of the ongoing pandemic, as they emphasized de many vulnerabilities – from financing and provision of health services, to the ones of the providers and regarding the generation of resources inside the system.

All these have contributed in amplifying some of the impacts of the pandemic in the economy and society, and will continue to generate new effects and consequences, as the end of the pandemic remains uncertain. To understand the challenges and policy implications for the years to come, considering the impact of the pandemic, as it seems a right assumption to believe that its effects will be propagated also after the pandemic ends, we first need to tackle the overall situation of the EU-27/28 health care systems before the outbreak of the pandemic.

1.1 Brief presentation of the EU-27 health care systems before 2020

By the beginning of the 21st century, health systems all over Europe, including the EU-27/28 were already faced with increasing pressures due to demographic change, to increasing demand for health care services accompanied by decreasing numbers of labor force, the need of adjusting the systems for achieving specific goals regarding preventive care, long-term care and especially accessibility of health care services, according to the goals of universal access to health.

The 2019 Report and Companion Report regarding the state of health within the EU-27/28 emphasized, as one of the core issues, a reality that has turned true, just a couple of months later: the European countries, including EU member-states, were already faced with some evidences, from among which we mention:

- a) The focus on improved communication, transparency and cooperation between the health system and policy-makers, economic actors and the large public was already identified as a necessity, in particular regarding major health threats, case in which vaccine hesitancy, low levels of health literacy, and widespread

mass-media disinformation/limited information were mentioned as particular sources of concern.

- b) Digital transformation included and considered as one of the main tools and drivers for improving policies, strategies and actions especially in preventing diseases, and promoting health as one of the core assets of the economies and societies at global, and European level. In this context, most emphasis was laid on increasing digital health literacy for creating proper foundations of using mHealth, and tele-medicine solutions;
- c) Changes required in the training and skill mix of health workers, as the tasks become more complex, including here due to the technological/digital pressure.
- d) The rather poor information based on statistical data about health systems based principally on quantitative data and less on quality data, has been highlighted once the European Pillar of Social Rights assisted in identifying gaps regarding health care access for various socioeconomic groups, each with its own characteristics and features. Most of the gaps were identified regarding information on accessibility changes, and challenges as differences were identified regarding level of services and goods provided by the health system;
- e) Issues regarding the generation, use and distribution of pharmaceutical products, as there were signaled increases in prices, practices of wasteful spending, and even affordability barriers. In this respect, the formulated recommendations were of increasing member-states' capacity to appraise the value of medical technologies; pool expertise and agree on improved shared practices and experiences for improving pricing and procurement methods; making good use of savings' opportunities based on generic drugs and similar products; improving the governance of the system at the level of hospitals, including how medicines are used (EC, 2019, Companion Report).

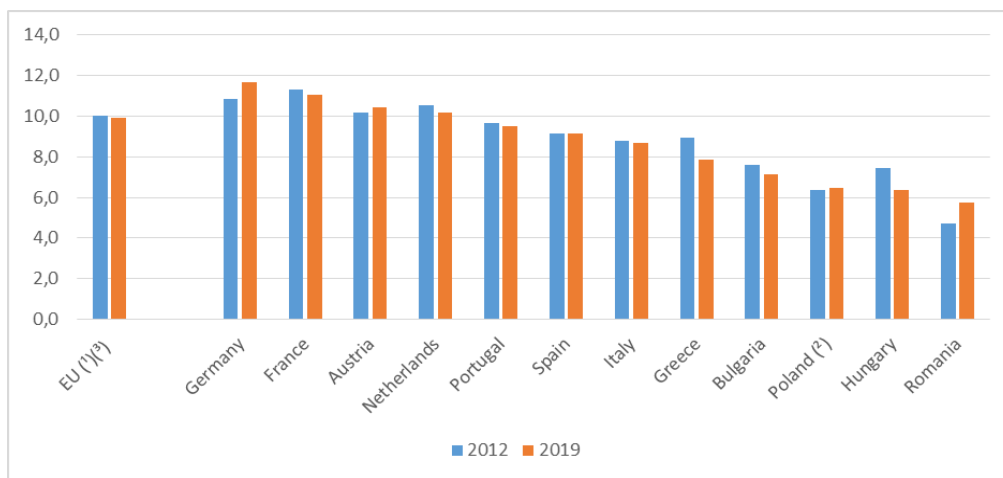
If we analyze these main findings, it is noticeable that these core issues had a huge impact in the immediately following year, once the SARS-COV2 virus spread-out all-over Europe.

1.2 Key information about EU-28/27 health systems over the period 2012-2019

Over the period 2012-2019 one of the most important topics is how the health system was financed, and which were the provisions regarding the expenditures for the health system over the period 2012 (which is considered as the first year after the financial-economic crisis and 2019 (the last year before the pandemic). It is noticeable that most member-states made in this period considerable efforts to increase their expenditures regarding health in relation to GDP (Figure 1). For providing for a better image, we have opted to include only 12 out of the 27/28 member-states, as this underpins also the fact that Romania has still a long way to go for recovering the differences.

Moreover, we propose, if we consider the multiple empirical evidences about the relationship about health and economic growth (Arrow, 1963; Carrin, et al. 1996; Mohajed, et al. 2004; Cylus, et al. 2012), to switch the perspective from health as

‘expenditure’ to health as investment. This shift in the perspective could be combined with an in-depth analysis on how the economics of health, a rather new discipline, could be changed into an autonomous economic branch, comprising some essential components, like trade and marketing of health care services, medical tourism, nutrition and wellbeing; living environment and sustainable and healthy housing. Of course, this would require an ample process of consultations with all stakeholders involved, including ones from complementary economic fields. However, it might result in sustainable, resilient and innovative solutions for the future governance of the health care systems, in accordance with the Millennium Development Goals (MDG) and with the EU agenda on health.



Source: Eurostat [online data codes hlth_sha11_hf: nama_10_gdp]

Figure 1. Health care expenditures relative to GDP in 2012 and 2019, selected EU-27/28 member-states

If we look at the differences in the expenditures relative to GDP, we find that one of the main sources for these differences is related to the financing schemes, respectively how the financial resources for the system are ensured.

Hereunder, we present, for comparison, the developments regarding two main sources of financing, respectively government schemes, and compulsory schemes and saving accounts for the years 2018 and 2019 (Table 1a and b).

The 2 years preceding the pandemic show that the changes in financing expenditures have been rather small, with changes of approximately 1 pp, an example being Greece, where the increase in financing expenditures based on government schemes increased from 27.5 in 2018 to 28.6 in 2019, and by 0.1pp for compulsory contributory health insurance schemes and other compulsory medical saving accounts. However, in the same period, Romania recorded a decrease by 0.6 pp as regards financing expenditures based on government schemes, followed by a comparable decrease in financing expenditures based on compulsory health insurances and other medical saving accounts.

This trend, in our opinion, has had a major impact also on the capacity of the country to react over the current period of pandemic, when especially the governance of the system, has highlighted also the weaknesses of governance overall, especially regarding coordination and cooperation between the representatives of the healthcare system and the representatives of the other economic and social sectors.

An issue of concern, when analyzing the financing of the expenditures, and which might represent also an additional argument for changing the economics of health also into a self-standing economic branch is that, irrespective of how financing of expenditures is realized, neither the compulsory health insurance contributions, nor other types of compulsory medical saving accounts can cover all needs and provide a favorable context for improving accessibility of the system, as the demographic realities prove that both the Bismarck- and Beveridge based systems are faced with major risks in the years to come.

Table 1. Financing of healthcare expenditure by main sources of financing 2018

Country	Government schemes	Compulsory contributory health insurance schemes + compulsory medical saving accounts	Voluntary health insurance schemes	Non-profit institutions serving households	Enterprise schemes	Households out-of-pocket payments
EU	28.3	51.3	:	:	:	15.5
Bulgaria	10.4	48.7	0.7	0.6	0.3	39.3
Germany	6.5	78.1	1.5	1.1	0.4	12.5
Greece	27.5	31.3	4.4	0.1	0.2	36.4
Spain	66.2	4.2	7.1	0.4	:	22.2
France	5.4	78.2	6.5	0.0	0.6	9.3
Italy	73.7	0.2	1.9	0.2	0.5	23.6
Hungary	8.6	60.9	1.9	1.2	0.6	26.9
Netherlands	6.4	75.7	5.7	0.0	1.5	10.8
Austria	30.2	44.5	5.1	1.6	0.2	18.4
Poland	10.0	61.5	6.1	1.2	0.8	20.4
Portugal	59.2	2.4	8.1	0.1	0.8	29.5
Romania	16.0	63.7	0.5	0.2	0.1	19.5

Source: Eurostat, (online data code hlth_sh11_hf)

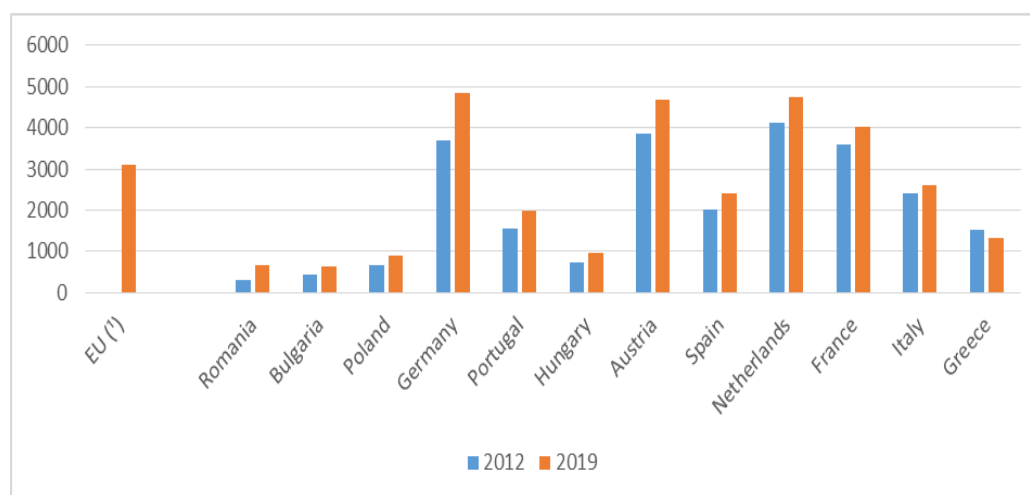
Table 2. Financing of healthcare expenditure by main sources of financing 2019

	Government schemes	Compulsory contributory health insurance schemes & compulsory medical saving accounts	Voluntary health insurance schemes	Financing schemes of non-profit institutions serving households	Enterprise financing schemes	Household out-of-pocket payments
EU ⁽¹⁾	28.2	51.5	3.9	0.5	0.5	15.4
Bulgaria	10.4	50.2	0.8	0.5	0.3	37.8
Germany	6.5	78.1	1.4	0.9	0.4	12.7

Greece	28.6	31.2	4.7	0.1	0.2	35.2
Spain	66.6	4.0	7.2	0.4	:	21.8
France	5.5	78.2	6.4	0.0	0.6	9.3
Italy	73.8	0.2	2.1	0.2	0.5	23.3
Hungary	8.6	59.8	1.7	1.2	0.6	28.2
Netherlands	6.5	76.2	5.3	0.0	1.5	10.6
Austria	30.5	44.8	5.2	1.7	0.2	17.7
Poland	9.9	61.8	6.2	1.1	0.8	20.1
Portugal	58.6	2.4	7.7	0.1	0.8	30.5
Romania	15.4	65.0	0.4	0.2	0.1	18.9

Source: Eurostat, (online data code hlth_sh11_hf)

This will be also a major policy challenge, not only now, in the current pandemic context, but also for the future, especially regarding the New Member-States, as they tend to spend less than former member-states of convergence and cohesion (Portugal, Spain, Greece, Austria), and much below the core member-states (Germany, France, Italy and the Netherlands). It is noticeable that the current healthcare expenditure per capita is still below the EU-27/28 average, and much behind the other mentioned EU-27 countries (Fig. 2).



Source: Eurostat [online data code hlth_sh11_hf]

Figure 2. Health expenditures per capita in 2012 and 2019, in mil. Euro

Considering the situation preceding the pandemic, it is obvious that the pandemic has accentuated the gaps, differences at the main levels, respectively governance, financing and human resources necessary in combating the effects of the pandemic. To these are added the other issues, related to how the health system, as such, has cooperated with the other systems (economic and social) during the pandemic. If we look at the main evolutions as regards available health workers, it is a long-acknowledged issue that health workers are insufficient in comparison with the

demands of the system, so as to cover and improve also the aspects related to preventive and long-term care.

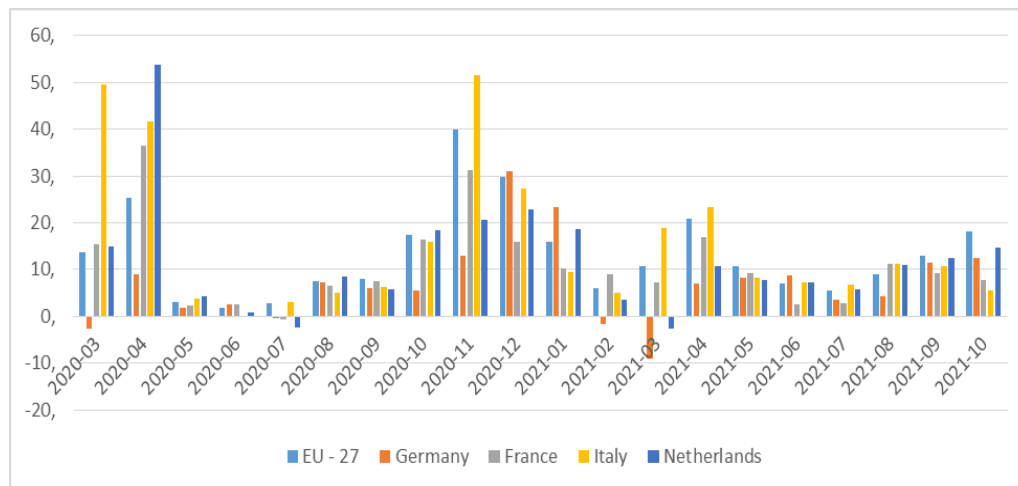
2. HEALTH SYSTEM DURING THE CURRENT PANDEMIC

The period of the pandemic is characterized by conflicting information which in turn has led to policy differences in tackling and containing the Covid-19 infection. There are considerable differences right from the beginning of the pandemic, which have shown that it is necessary to improve coordination and cooperation between the member-states in order to improve resilience and improve the way in which strategies and actions are undertaken in conditions of stress and crisis, including here the situation generated by the pandemic.

2.1 Brief overview of the period March 2020-July 2021

Since the outbreak of the crisis, over 7 million individuals were infected and 200.000 had died from Covid-19 (October 2020). At the same time, the measures like total or partial lockdown, wearing masks, closing of schools, cultural institutions, prohibiting or restricting travel have triggered numerous economic and social effects that have impacted the quality of life for the majority of the European population.

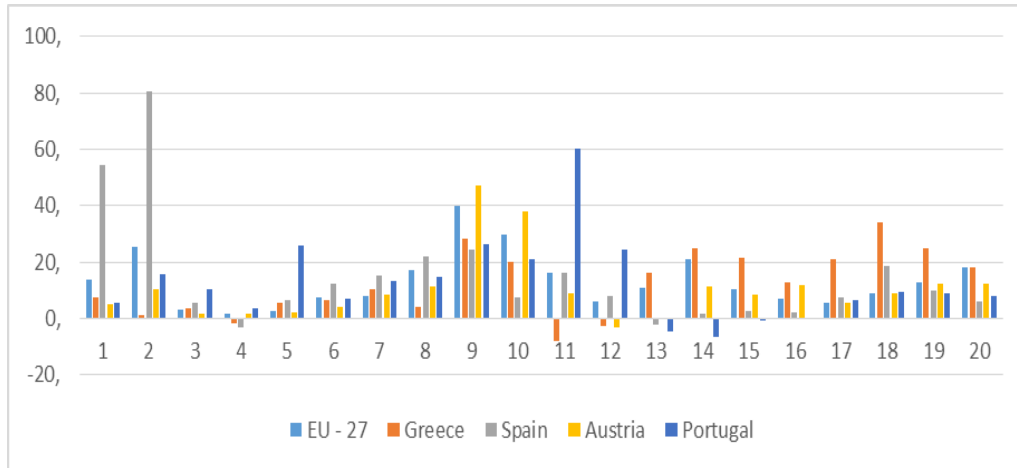
The unpreparedness of the EU-27/28 as a whole, and of each of the member-states was reflected in the decisions taken in the effort to contain the virus. Evidence is found in the monthly excess mortality rates between March 2020 and October 2021, when the average excess mortality per month, compared with the average monthly deaths over the period 2016-2019 had considerably negative evolutions, as the rates were high, and represented the hard impact of the pandemic (Fig. 3a, b, and c).



Source: Eurostat [DEMO_MEXRT_custom_1219868]

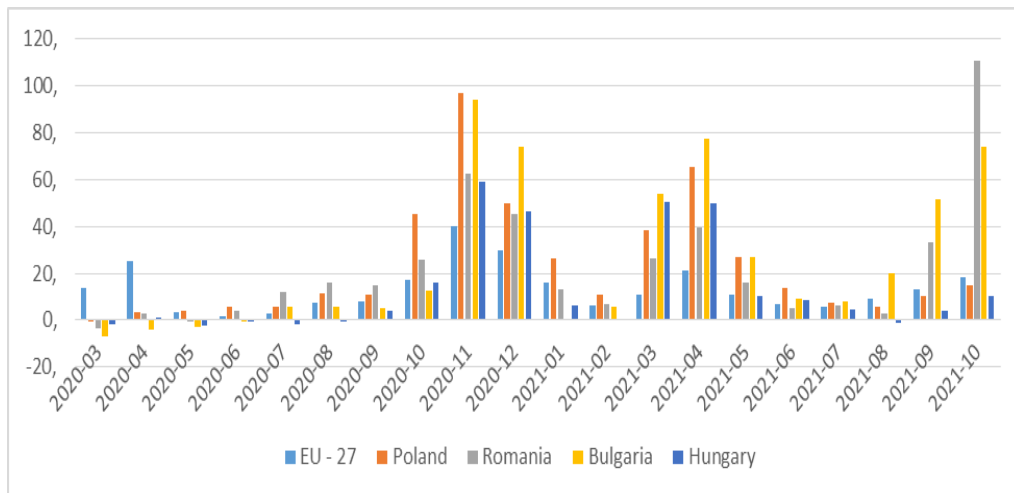
Figure 3a. Excess mortality rates by month over the period March 2020 to October 2021 for selected Old-Member-States

For a better overview of the developments regarding excessive death in the current pandemic, we have opted for the comparison between the EU-27 average and the average for each group of member-states, respectively Old Member-States (Germany, France, Italy and the Netherlands), Former Member-States of Convergence and Cohesion (Austria, Greece, Spain and Portugal), and the New Member-States (Romania, Poland, Hungary and Bulgaria).



Source: Eurostat [DEMO_MEXRT_custom_1219868]

Figure 3b. Excess mortality rates by month over the period March 2020 to October 2021 for selected Former Member-States of Convergence and Cohesion



Source: Eurostat [DEMO_MEXRT_custom_1219868]

Figure 3c. Excess mortality rates by month over the period March 2020 to October 2021 for selected New Member-States

An amendment is necessary: the data are still not validated, most of it being provisional for several of the EU-27 member-states, including member-states included in our sample. One of the most important effects of the pandemic, and with which the healthcare system will have to deal in the immediate future, but also on medium-, and long-term is the increase in mental health issues, as the “Health at a glance: Europe 2018” had already showed that 1 in 6 people across Europe, that is about 84 million persons had mental health issues.

It is obvious that the Covid-19 pandemic has worsened this situation, as there were considerable drops in individual wellbeing levels, while older people were hit hard at the same time by the pandemic and by the fact that very often due to the imposed restrictions they lost contact with friends and family also, save for the cases in which extended families were living in the same house.

A survey realized in the first quarter of 2021 indicates that since the outbreak of the pandemic, mental well-being decreased over all age, and socioeconomic groups. The main reasons for the pessimistic outlook and decreasing well-being is found in the continuous closures and restrictions on the recommendation of the representatives of the national health systems which were guided by the decisions taken at the EU-27 level, according to WHO recommendations.

Therefore, we believe that especially the aspects related to mental health and well-being drops because of the conditions imposed by the pandemic are a good reflection regarding the economic and social impact.

2.2 Economic and social impact

The pandemic hit worst on the labor market, and added to the discrepancies triggered by the changed nature of work due to technological pressure. Several categories of businesses were forced to close, from those in the tourism and travel industry, to those involved in other activities (leisure, culture, arts) that were considered as non-essential in this period of pandemic.

The unprecedented contraction of 2020 with a drop of the real GDP by 6.1% which exceeds even the decrease registered during the economic-financial crisis, was a real worrying signal and at the same time, it triggered the coordinated EU response regarding businesses and workers, by introducing the EU SURE instrument that had as objective to ensure the preservation of existing jobs, providing for short-time work schemes, and by ensuring mostly liquidities to support companies.

The most significant changes were encountered in the ways how work was performed, and number of hours worked per employee. While the employment rate in the EU-27 decreased by about 2 pp between the last quarter of 2019 and the second quarter of 2020, and the numbers of hours worked dropped by about 15% at the outbreak of the pandemic, a reaction that was even more volatile than the one determined by the financial-economic crisis of the years 2008-2011.

However, labor market policies have been based on job retention schemes (JRS) mainly for businesses that are expected to be able to return to their basic activities in a short period of time in the post-pandemic period, and these schemes include: short-time work and wage subsidies. These schemes are applicable mainly to

small- and medium-sized enterprises which are the actual engines of economic growth and job creation in EU-27.

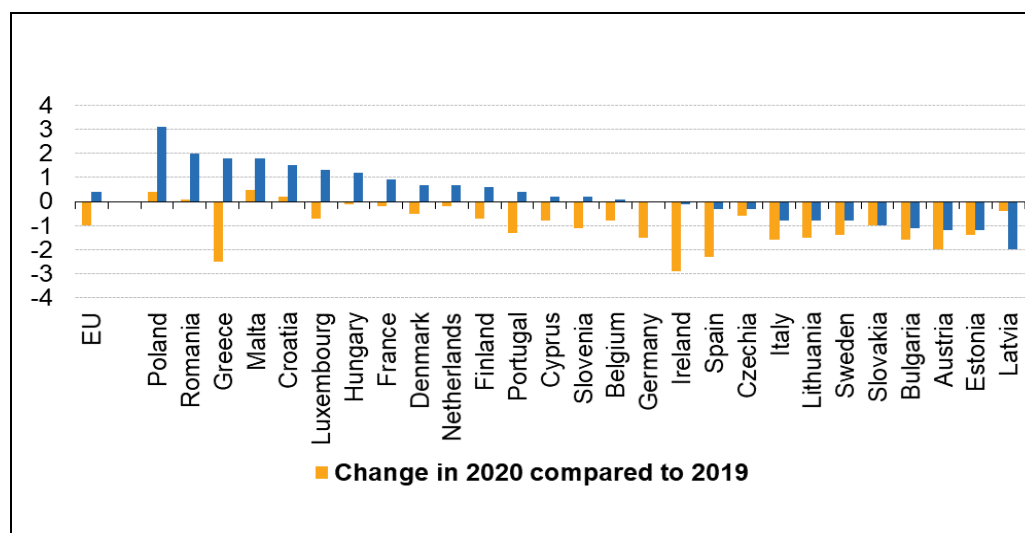
However, if we analyze the impact of the pandemic on various socioeconomic group it is asymmetric: most affected sectors were those that required physical presence and interactions (tourism, transports, trade), while sectors like constructions, industry and ICT were less influenced by the pandemic developments.

The evolution is in line with the overall developments of labor market supply and demand, and the sectors were hit differently, the most relevant economic sector hit being the service sector which is also more 'contact-intensive' than other sectors.

The employment rate trend over the period 2019-2020 follows the negative overall trends, in the context of the current pandemic, as the data show for the EU-27member-states (Figure 4).

Two concerning trends could be identified, covering all age groups from 20 to 64 years of age: unlike during the global financial crisis, most exited employment and entered into inactivity, and did not enter into unemployment. While most severe cuts were recorded in the group of young people, and they were also those who were working reduced hours. The gap between male and female employment continued to persist, as this time the sectors where women are more often employed were more impacted by the pandemic: HORECA (accommodation, food and beverage, travel and tourism), along with educational, arts, and entertainment sectors.

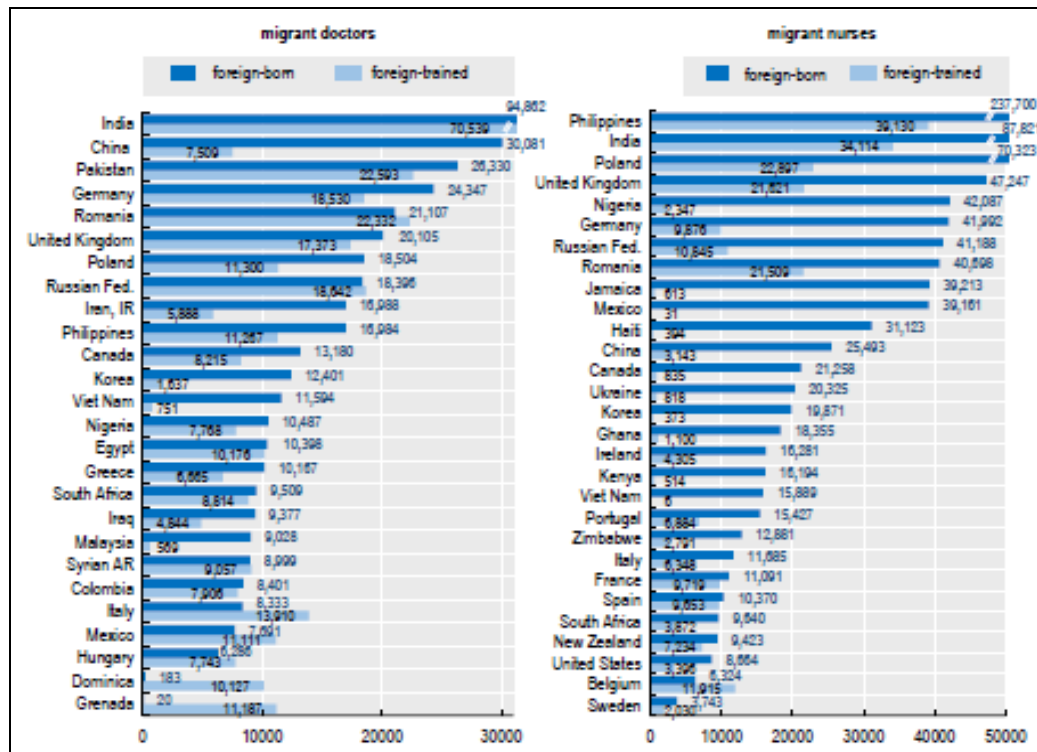
But, the most concerning evolution is the one regarding the migration for work, even in pandemic conditions of the health workers. This phenomenon, which is of particular concern also for Romania shows that countries within EU-27, but also included in the OECD have even fast-tracked some procedures to gain more health workers during the pandemic.



Source: Eurostat [lfsi_empl_a]

Figure 4. Employment rate change by country in the period 2019-2020 (age group 20 to 64 years, %)

This is reflected by the fact that about 1/3 of all foreign-born and -trained physicians and nurses are from another OECD state, or from neighboring non-OECD, but EU-27 member-states, as well as from other European and Asian countries. In fact, among the countries of origin for foreign trained doctors Romania counts amongst the countries with highest ‘brain drain’, including the year 2020, which is the first year of the pandemic, together with Germany and Poland (Figure 5).



Source: https://read.oecd-ilibrary.org/view/?ref=132_132856-kmg6jh3kvd&title=Contribution-of-migrant-doctors-and-nurses-to-tackling-COVID-19-crisis-in-OECD-countries

Figure 5. Top 20 countries for foreign-born or -trained doctors and nurses in OECD countries (2020)

This fact has also contributed to exposing some of the systemic risks of the pandemic on this particular labor market, and regarding this specific socioeconomic group represented by all levels of health workers. It returns mainly to the issue of funding and how, because of the constant underfinancing, many physicians, nurses and other health workers opt to migrate. Nonetheless, the issue of financing and wages is only one side, as other reasons are also relevant like better working conditions, better access to training, information, improvement and career advancement (Balan, M. et al., 2017).

This risk has not ceased during the pandemic and only contributed to highlighting the role of the public health services, on one hand, and on the other hand

the need to improve the policies for the health system by considering and evaluating the needs of the system in itself, regarding improvement of governance, financing and even providers.

3. CONCLUSIONS

The ongoing pandemic has showed how frail health systems are, on one hand, and on the other hand, how the absence of clear governance principles, that would provide for coordination and cooperation and transparency in the interactions between the health system and the other public and private systems (including the one of education) need be improved. Education is the first non-medical factor that could bring a relevant contribution, especially if an adequate framework is developed for tackling one of the issues showed by the Health Report Companion 2018, respectively the reluctance regarding vaccines which already existed and which nowadays triggers protest from the population, and increases levels of social unrest.

The improved governance framework would also ensure improved financing in ensuring sustainability and resilience of the health system by shifting from regarding health as expenditure to the perspective of health as investment, based on making good use of the possibilities offered within the discipline of health economics and transforming the field, as such, gradually and based on negotiations and trade-offs with all interested stakeholders into an actual and self-standing economic branch.

A governance issue is last, but not least, also migration of health workers, where improved governance of the system, by considering the above-mentioned social dialogue in a national and international framework could impact positively on this trend.

It is obvious that, as the pandemic progresses, these levels should be tackled, especially regarding the governance and financing factors because they are main risk-factors in increasing disparities and divergence in the development of EU member-states' development.

REFERENCES:

- [1]. **Arah, O.A. et al.** (2006) A conceptual framework for the OECD Health Care Quality Indicators Project, *Int J Qual Health Care*, Sep;18 Suppl 1:5-13
- [2]. **Arrow, K.J.** (1963) Uncertainty and the Welfare Economics of Medical Care, *The American Economic Review*, Volume 53, Issue 5 (Dec, 1963), 941-973
- [3]. **Balan, M. et al.** (2017) *Health workers' migration during the crisis and post-crisis period: a case of Romania*, *Czech Journal of Social Sciences, Business and Economics*, No. 4/2017, University Service Publishing
- [4]. **Carrin, G., et al.** (1996) *Exploring the health impact of economic growth, poverty reduction and public health expenditure*. Macroeconomic health and development series / World Health Organization,
- [5]. **Cylus, J. et al.** (2012) *Is there a statistical relationship between economic crises and changes in government health expenditure growth? An analysis of twenty-four European countries*. *Health services research*, 47(6), 2204-2224

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- [6]. **Eurofound** (2021) *Living, working and COVID-19 (Update April 2021): Mental Health and trust decline across EU as pandemic enters another year*, Factsheet
- [7]. **European Union** (2019) *State of Health in the EU: Companion Report 2019*, European Commission, ec.europa.eu/health/state
- [8]. **EU Expert Group on Health Systems Performance Assessment (HSPA)** (2020) *Assessing the resilience of health systems in Europe: an overview of the theory, current practice and strategies for improvement*, Publications Office of the EU, Luxembourg, https://ec.europa.eu/health/sites/health/files/systems_performance_assessment/docs/2020_resilience_en.pdf
- [9]. **European Parliamentary Research Service** (2021) *Mental health and the pandemic*, European Parliament
- [10]. **Kruk ME, et al.** (2006) *High-quality health systems in the Sustainable Development Goals era: time for a revolution*. *Lancet Glob Health*. 2018 Aug. 9(8)
- [11]. **Mojtahed, A., et al.** (2004) *An investigation of the effects of health expenditure on economic growth (case study of developing countries)*. *Iranian Journal of Economic Research*, 19, 31-54
- [12]. **Murray, J.L. et al. (eds.)** (2003) *Health Systems Performance Assessment: debates, methods and empiricism*, World Health Organization
- [13]. **Mushkin, S.** (1962) *Health as an Investment*, *Journal of Political economy*, Vol. 70, No.5, Part 2, Investment in Human Beings, Published by The University of Chicago Press <http://www.jstor.org/stable/1829109>
- [14]. **OECD** (2020) *Contribution of migrant doctors and nurses to tackling Covid-19 crisis in OECD countries*, OECD, Tackling Coronavirus (Covid-19): contributing to a global effort, May 2020